GENERAL GROWTH AND BASIC PROBLEMS OF THE TURKISH ECONOMY

Niyazi Günal

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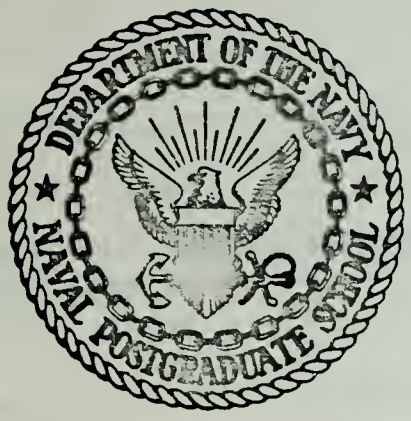

THESIS

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OF THE TURKISH ECONOMY

by

Niyazi Günal

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The past decade has witnessed a significant acceleration in Turkey's rate of economic expansion. During the plan periods (1963-67, 1968-72), the annual average real rate of growth in the GNP has been 6.4%. The decade of 1951-1962 had experienced a real average annual rate of 4%. The annual rate of inflation during the 1950's approached 10%, whilst between 1961 and 1970 it has been 4.4%, a figure comparable

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The long-term target of self-sustained economic growth, i.e., independent of foreign loans, was a prominant aim of the plans.

Despite the evident success of economic planning some basic problems have been a constant source of anxiety to the economic authorities throughout the plan periods; the balance of payments situation, rapid growth of population, the high levels of open and disguised unemployment, insufficiency of domestic savings and financial institutions, excessive dependence of agriculture on weather conditions.

General Growth and Basic Problems of the Turkish Economy

by

Niyazi Günal
Lieutenant Commander, Turkish Navy
B.S., Turkish Naval Academy, 1959

Submitted in partial fulfillment of the
requirements for the degree of

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from the

NAVAL POSTGRADUATE SCHOOL
December 1974

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I. INTRODUCTION

The primary aim of this study is to describe the economic developments and analyze the determinants of the growth of the Turkish economy, especially over the First and Second Plan periods (1963-1967, 1968-1972) - the targets and realizations of the plans, rate of growth and structural changes, investment, sources and allocations, public finance, production trends, and foreign economic relations.

The background prior to these plan periods is provided in Chapter II, which outlines the economic development in the Turkish economy during the decade immediately preceding the planning era.

In Chapters III and IV the general objectives of the development plans and basic economic policy in the Turkish economy (mixed economy) are briefly discussed.

Despite the evident success of economic planning some basic problems have been a constant source of anxiety to the economic planners and authorities throughout plan periods. These basic problems restricting the development of the Turkish economy, and conclusions to this study are sketched in Chapters V and VI, respectively.

An econometric analysis of the patterns of economic development in the structure of production (industry and primary production) among countries in market economies, is presented in the Appendix, to predict a pattern of economic development of the Turkish economy and to find the position of the Turkish economy in the world economy.

Three distinct development patterns have been identified from cross-country analyses: large countries including Turkey, small industry-oriented countries, and small primary-oriented countries. Time-series analyses of growth paths (Kuznets' studies) supported the hypothesis that time-series and cross-country patterns have considerable similarities. From this major finding it was possible to derive or predict a development pattern for Turkey as its income level rises that being the large country pattern.

For the proceeding plans, the strategy of "decreasing the agricultural sector's share in GNP, and increasing the industrial sector's share and also increasing both sector's productivity" has been adopted as a sound and valid policy, by the evaluations of the Five-Year Plans.

If allowances are made for the unfavorable weather conditions and over-optimistic foreign aid receipts, from the macro-economic point of view, the preparation and implementation of the Plans are considered successful.

II. TURKEY'S ECONOMIC SITUATION BEFORE THE PLAN PERIODS

Although called the First-Five-Year Development Plan, the Plan covering the period 1963-1967 was not the first attempt at planned economic development in the history of the Turkish Republic. Two five-year plans had been drawn up in the 1930's, the second being abandoned at the beginning of the Second World War, and another was started in 1946.

The Democratic Party which had strongly attacked etatism [Ref. 2] in the election campaign, was returned to power in 1950. Planning was rejected and a policy of de-nationalization proposed. In fact, although no planning took place during the decade of the 1950's, neither did any de-nationalization. Private enterprise was welcomed and more emphasis laid on agricultural development [Ref. 3].

The 1950's were not years of successful economic development. The average annual real rate of economic growth, as measured by the rise in the real level of GNP, was 4.0% between 1951 and 1961 and 3.4% between 1956 and 1961. During the latter period per capita income actually declined [Ref. 4]. Despite this slow rate of growth the level of aggregate demand continuously exceeded supply resulting in severe inflation. Part of this consisted of comparatively heavy investment outlays. It is therefore surprising that growth in the real level of GNP was not greater. The answer appears to lie in the fact that the investment which was undertaken

was extremely unproductive, the high level of public investment consisting of much infra-structure investment and projects chosen for political rather than economic merit [Ref. 5]. The investment in infra-structure was not all wasteful but did, quite predictably, tend to be an investment with a low output-capital ratio.

The high level of public investment was achieved by reliance on inflationary forms of finance. The heavy deficit spending by the Government during this period was undoubtedly the main cause of the inflation which occurred. The money supply increased from 1,145m.TL. in 1950 to 5,574m.TL. in 1960. The cost of living index in Istanbul rose from 38 in 1950 to 93 in 1960 and was slightly more in Ankara. The general wholesale price index rose from 35 in 1950 to 92 in 1960, and the implicit GNP deflator indicates an average annual rate of inflation of almost 10% [Ref. 4].

The worst effect of this high rate of inflation was clearly on the balance of payments. Devaluation was strongly resisted by the Government as a solution to the serious imbalance which appeared in the early 1950's. By 1956, however, the situation had reached a point where action had to be taken. The course pursued by the Government was to enact a law empowering it to fix any prices, commissions, fees, etc. A limit was also fixed for the expansion of credit. As an immediate solution to the balance of payments problem, tariffs on imports were raised and subsidies provided for exports. A tourist rate was introduced which lowered the exchange rate for certain categories of visitors

from 2.8TL. to the dollar to 5.25TL. to the dollar. Black market rates, however, were reported to lie in the region of 10-12TL. to the dollar [Ref. 3].

The measures taken to stem the tide of rising prices were quite inadequate, and after a brief respite prices again began to spiral upwards reaching a rate of inflation of 20% in 1958. It is this year which is usually taken by commentators and historians to mark the end of an era [Ref. 7]. A stock-taking of the 1950's is made up this year. Radical changes took place then making events in the last two years of the decade somehow incomparable. In 1958, however, there was not a turning point in the economic history of the Turkish Republic. It is taken as a date from which to assess the developments of the 1950's because in 1958 the Government devalued the lira from 2.8TL. to 9.0TL. to the dollar and, at the same time, agreed with the O.E.E.C. and the I.M.F. to secure the new rate by running a balanced budget. This the Government ultimately failed to do, and inflation and more balance of payments crises followed in the subsequent two years [Ref. 4].

The continued inflation, further losses of reserves and increased political agitation culminated in the military coup of May 1960.

Political and economic stability was finally restored in 1962 after the disruptions of the revolution. Before this, however, an indication of a change in the general approach to economic policy came with the establishment of the State Planning Organization in October 1960, less than

five months after the military take-over. The planners began work on preparing both a five-year plan to begin in 1963 and a one-year program for the transition year, 1962.

Although 1958 has been regarded as a false dawn in this analysis of the developments in the Turkish economy, 1962 can be considered a watershed in modern Turkish history. The decade 1951-1961 had experienced a real average annual rate of growth in GNP of 4.0%, but this fell, in the second half of the decade, to 3.4%. In contrast, the seven year period from 1962 to 1963 produced an average growth rate of 6.4%, and the per capita growth rate shifted from a negative to a positive rate averaging 3.9% [Ref. 4]. Since the revolution, considerable interest has been taken in the preparations of the State Planning Organization for the five-year development plans [Refs. 6, 7 and 8] and annual programs which proceeded the five-year plans.

III. GENERAL OBJECTIVES OF THE DEVELOPMENT PLANS

The Five-Year development plans, based on the principles of justice and full employment, are aimed at raising the standard of living of the Turkish people to a level compatible with human dignity in a free and civilized environment, within a democratic and mixed economic system. The objectives of the Five-Year Plans were, primarily, to achieve a rapid and sustained increase in per capita income, while secondarily, to achieve a balanced development between various regions and income brackets, to secure possibilities of employment for a greater number of people, to share the benefits and burdens of the development with equity and within the principles of social justice, and to attain an efficient and stable improvement in the social and economic structure.

The basic developmental objective of the plans was to increase the GNP by 7% annually, during the period 1963-72. The plans, however, did not only aim at accelerating the rate of growth, but also aimed at achieving a production capacity capable of sustaining the economic and social structure of Turkey and a fast rate of growth beyond the year 1972. For this purpose the rapid elimination of structural difficulties facing the Turkish economy and the most effective utilization of available resources was considered imperative. During the plan periods, the realization of a sustained high rate of growth in the Turkish

economy depended upon the degree of decisiveness and success in attaining the selected targets [Ref. 7].

The plans aimed at achieving a 7% rate of growth per annum in the economy, and established as a target the realization of radical changes to ensure and maintain that growth rate. The modernization of economic activities, as a whole, depended upon the use of modern technology and know-how in agriculture, instead of traditional methods, and upon achievement of a rapid increase in the relative share of the industrial sector in GNP. For this purpose the output of the industrial sector, which would become the leading sector of the economy during the Second Plan period, would mark an increase of 12% yearly, and its relative share in GNP would increase from 16.3% in 1967 to 20.5% in 1972. To achieve this increase it was considered imperative to expand the general employment opportunities; to transfer surplus manpower from the agricultural sector into non-agricultural activities; to utilize trained manpower more effectively; to gradually reduce the dependence of the Turkish economy on foreign resources; to alleviate the problems in the balance of payments; and above all, to accelerate the rate of industrial activity in order to attain rapid development, and to promote urbanization parallel with the efforts towards industrialization.

While the plans aimed at changing the general structure of the economy from an agricultural character to one where the industrial sector predominated, they also aimed at reducing the dependence of agricultural output on weather

conditions. A decline in the share of agriculture in national income and a reduction in the dependence of agricultural output on weather conditions, would ensure control over the growth rate and permit the establishment of a standard of living consistent with the choices and aspirations of the nation.

During the plan periods, efforts toward reducing the dependence of agricultural output on weather conditions were considered imperative in order to avoid fluctuations in the standard of living of the agricultural population, by ensuring a more stable rate of growth. It would also enable the preparation of more dependable plans based on more reliable estimates.

Raising the standard of living and the welfare of the community has been set as a target in the plans. However, a contradiction existed, in general, between the target of accelerating the rate of growth of the economy as fast as possible, and the target of raising the physical welfare of the present generations as measured in terms of consumption levels. In other words, the future economic strength and welfare of the Turkish community depend upon the extent of the restriction the present generations can impose upon their consumption, and the size of the increase in total savings and investment they can achieve. The rate of growth envisioned in the plans defined the choice made by the Turkish Nation between these two targets. In order to achieve, in the long run, a rapid improvement in the

standard of living, the plan aimed at increasing domestic savings by 77.6% during the period 1967-62 and stipulated a rise of only 28.0% in five years, (or 5.1% per annum), in private consumption expenditure. During the same period, however, the population was estimated to have increased by approximately 2.6% per annum. Consequently, the consumption or the standard of living of the present generations would increase by only 2.5%, against an increase of 4.4% in per capita GNP. Per capita GNP would thus rise from TL 1,755 to TL 1,980. Nevertheless, as a result of the policies followed to ensure a more equitable distribution of rising income and to achieve a balanced development between the various regions, the standard of living of the low income groups of the community is projected to rise at an above average rate.

When the great differences between the rate of growth in savings and in consumption is taken into consideration, the main objective of the plans has to be defined more clearly: "The plans aimed at strengthening the structure of the Turkish economy to a level capable of sustaining a high rate of growth through efforts consistent with the principles of social justice and of equality in opportunity and, consequently, they aimed at raising the standard of living of future generations rather than raising the physical welfare or consumption level of the community during the plan periods." [Ref. 7].

The long-term objective of the Turkish Nation is to provide the economy with a structure permitting it to

sustain the stipulated growth rate through its own resources without recourse to foreign aid. Although foreign resources, in the nature of developmental credits, has to be transferred from abroad to Turkey as a consequence of the efforts to realize the stated objective, the plans aimed at keeping such transfers of foreign resources at the lowest level possible and called for a fall in the relative share of these resources in GNP, from 2.0% in 1967 to 1.7% in 1972. The period 1968-72, therefore, constituted the most critical years for the Nation in its efforts to attain economic self-sufficiency [Ref. 8].

IV. BASIC POLICY OF THE FIVE-YEAR DEVELOPMENT PLANS: MIXED ECONOMIC POLICY

A. PRINCIPLES

The basic objective of the mixed economy system is to accelerate development by mobilizing all the resources and potential of the country through the framework of a better distribution of resources among economic and social activities.

The mixed economy system was employed as a tool capable of ensuring an equitable and balanced development in the efforts towards improving the welfare of the nation.

Although the plans were imperative for the public sector, for the private sector they served as a guide and support and they helped individuals explore and develop their enterprising potential.

B. DEVELOPMENT OF THE MIXED ECONOMIC SYSTEM

A study of the historical evolution of the Turksih economy reveals the existence of various periods of different characteristics. During the period 1923-1932, an economic policy dependent on the private sector was adopted. During this period measures were taken to encourage the growth of private enterprise through the establishment of the Is Bank and the Industry and Mining Bank and by enacting the 1928 Law on the "Encouragement of Industry." However, in 1932 the State began to participate in economic activities directly. As a result of this practice the system called "mixed economy" came into existence.

Although widely implemented in almost all of the contemporary societies having chosen a free and democratic way of life, the mixed economy system represents a different character in Turkey both as to the conditions which caused its creation and as to its development.

Turkey was one of the first countries in the world to widely implement the mixed economy system. This system, however, was not created in Turkey under doctrinal considerations. It came about as a result of the need for rapid development and of the necessity to reach quickly the level of contemporary civilization by making use of all available resources.

At the beginning of the 1930's, insufficient savings needed for development and the lack of enterpreneurs capable of directing these limited savings into productive investments within the Turkish society forced the State to participate in economic life not only in the capacity of regulating economic activities but in the capacity of making direct investments in the basic production oriented industries. Basic industries in the fields of mining and metallurgy and the first installations of considerable size built to meet the basic feed and clothing requirements of the people were established by the State. However, conditions providing the possibility to transfer these installations to private enterprise in the course of time were introduced under a special law which was put into force in 1938.

Drawbacks observed in the operation of the market mechanism, in addition to the insufficient savings and entepreneurs

have been influential in the extensive implementation of the mixed economy system. Indeed, the prices established in an improperly operating market could not accurately reflect the actual scarcities or abundances in the economy. Employment of market prices alone as an indicator in reaching a decision on investments and production prevents the effective distribution of resources and causes wasteful expenditures in the economy. In other words, the failure to distinguish between the social and individual nature of profits prevents the effective distribution of resources for development of the economy.

The inability of private enterprise alone to attain the rapid development taken as a target by the Turkish nation created the necessity for the public sector to make direct investments in production activities. However, the lack of responsibility associated with ownership, the failure to establish a clear relation between the risks and the rewards of this undertaking and the deficiencies in the direct interference of the State in economic life have prevented, in the final analysis, the effective utilization of resources. The absence of dynamism peculiar to private enterprise in the economic activities of the State cause bottlenecks in communication and an increase in red-tape which reduces administrative efficiency.

The mixed economy system which began to be implemented in the 1930's marked a development in the course of time and formed a characteristic feature of the Turkish nation and economy. During the years following the Second World War,

the private sector marked a substantial development. As a result of this development, the relative share of the private sector industrial development activities reached the level of 61 percent during the period 1963-1971 [Ref. 7].

C. THE RULES OF MIXED ECONOMY

The functioning of the public and private sectors side by side in the market to accelerate economic development within the framework of the principle of equality in opportunity, necessitates a clear definition of the rules of mixed economy. Such a definition will, on the one hand, eliminate uncertainities in the market and consequently reduce the effect of the "risk factor" caused by the competition of the public sector and, on the other, serve to shift public sector investments into the desired fields of activity.

The rules of mixed economy are explained below:

(1) The static and dynamic efficacy of the economy must be achieved mainly through the market mechanism. In other words, economic decisions must be made on the basis of free market prices.

(2) In fields where the public and private sectors carry out productive activities side by side, the State must ensure equality in opportunity and treatment.

(3) The State must ensure price stability and minimize the deficiencies of the price mechanism through indirect means such as tax, credit, money and foreign trade policies, and it must prevent the creation of monoplistic tendencies

and the exploitation of consumers. In this way, it will ensure the effective distribution of private sector resources in fields to help the development of the economy.

(4) In particular, the State must undertake infrastructural investments which accelerate the overall development and make investments of a social welfare nature in education and health services. This will help to improve the welfare of the community.

(5) The policies to be adopted in the Plan period must enable the private sector to take over the development of the manufacturing industry in the long run. The public sector must complete the investments already initiated and must increase and improve the efficiency of the existing production capacity. Moreover, the public sector must enter those fields of industry which the private sector cannot participate in despite the incentives and which may create bottlenecks in the economy. Mixed enterprises must be preferred in the new fields of industry taken up by the public sector, in order to increase the contribution of the private sector to development efforts.

> "In the mixed enterprises to be established through the capital participation of the State or State Economic Enterprises, measures must be taken to avoid the hegomony of a limited number of persons over the capital and administration of the enterprises." [Ref. 7.]

To increase the effectiveness of the communications system of the private sector, the communications system existing between the public and private sectors must be defined and strengthened to achieve development in conformity with Plan targets.

The most important advantage of this will be to save the private sector from making mistakes in reaching foresighted decisions on investments and production. This will, thus, ensure the effective distribution and utilization of resources without causing a waste in expenditures in making efforts to achieve Plan targets. For this purpose, the public sector must ensure the transmittal of the necessary information to the private sector. The projects of the private sector which are above a defined magnitude must be required to be reviewed by the State Planning Organization, and if they are found to be in conformity with development targets, they will benefit from incentives.

V. DEVELOPMENTS OF THE TURKISH ECONOMY DURING THE PLAN PERIODS

A. GENERAL GROWTH OF THE ECONOMY

The First and Second Five-Year Plans (1963-1967, 1968-1972) of Turkey have marked definite stages in the country's economic progress. The First Plan (1963-1967) was instrumental in creating most of the basic infrastructure for economic growth, while the Second Plan accelerated the pace of industrialization. Consequetly, a substantial increase in national and per capita incomes was achieved. The Gross National Product (GNP) has shown an increase of about 65% during the period 1963-1971 rising from 108.7 billion TL. to 179.3 billion TL. The share of the agricultural sector in the GNP decreased from 41.2% in 1963 to 28.1% in 1972, while the share of the industry increased from 16.8% to 22.6% during this period. Similarly, the per capita income has risen from 3640 TL. to 4901 TL. During this period the weighted average of the imports has grown at about 8.7%p.a. while that of exports has grown at a rate of 7.0%. Accordingly, the volume of the foreign trade has grown from $1.05 billion to $1.85 billion. During this period, investments have increased from 16.7 billion to 32.4 billion TL. About 92% of the total investment figure of 215.4 billion TL. has been realized through internal resources. Though the contribution of external resources to total savings was subject to annual fluctuations, the trend is one of gradual decrease.

The rate of literacy of the school age population have increased from 40% in 1963 to 54% in 1970. During the same period the percentage of inhabitants living in single rooms has decreased rom 24% to 16%. Similarly, the percentage of the population not benefiting from electricity has fallen from 69% to 62% [Ref. 8].

In spite of the positive developments mentioned above Turkey has not been able to provide complete solutions to its problems. The problems of economic development will be discussed later.

Turkey's approach to economic planning has been pragmatic resulting in the achievement of an average rate of growth only fractionally lower than the 7% envisaged in the first two plans. The outcome of this approach is reflected in some of the facts and figures stated above.

As regards the social infrastructure, the ultimate goal of all efforts in the economic and social fields has been to move as fast as possible towards the attainment of a "welfare State" in accordance with Turkish Constitution and in line with the cultural heritage of the country [Ref. 8].

It is sufficient to mention here that the economy has witnessed a fairly high rate of growth during the planned period. The investment ratios have gone up fairly well, both because of the increasing domestic savings and the inflow of foreign assistance. The economy has already undergone a significant structural change which is evident in the rising contribution of industrial sector to GNP, increasing employment and rising exports. In short, the indications are that

the economy now is poised for a more ambitious development effort.

In the foregoing paragraphs the efforts and the achievements of the past ten years economic development in Turkey has been outlined in general terms. It would, therefore, be useful at this juncture to analyze these achievements in a somewhat detailed manner.

B. RATE OF GROWTH AND STRUCTURAL CHANGES

During the past ten years the Turkish economy has achieved a fairly high rate of growth in real terms. Indications are that in the first two plan periods this rate of growth has been only fractionally below the planned target of 7% (Table I and Figure 1).

TABLE I. The Annual Growth Rates of GNP (at factor cost)

Years	Growth Rate (%)
1963	7.7
1964	4.9
1965	4.6
1966	10.3
1967	6.1
1963-1967	6.7
1968	6.7
1969	6.3
1970	5.5
1971	9.2
1968-1971	6.9

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

Table II shows the actual rates of growth for the First and Second Plan periods along with targets envisaged in the Plans.

Figure 1. The Annual Growth Rates of Sectors (Realization).

This, being the average GNP rate of growth, necessarily calls for subtracting the average population growth of 2.7% per year resulting in a per-capita increase of 4.3%. This compares favorably with the rates of growth of the OECD countries which on the average have been about 4.8% during the past ten years [Ref. 8].

TABLE II. The Annual Growth Rates of the Sectors (at factor cost)

Sector	First Plan		Second Plan	
	Target	Actual	Target	Actual
Agriculture	4.2	3.2	4.1	3.1
Industry	12.3	9.7	12.0	7.6
Services	6.8	7.9	6.3	7.7
Construction	10.7	8.0	7.2	6.6
Transport	10.5	7.2	7.2	7.8
Housing	-	8.1	5.9	8.2
Other Services	-	8.0	6.0	7.9
Domestic Income (at factor cost)	6.9	6.4	6.8	6.1
GNP	7.0	6.7	7.0	6.9

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972

The contribution of the agricultural sector to the GNP has declined from about 31.5% to 28.1%, while that of industrial sector has increased from 20.6% to 22.6% during the Second Plan period. Within the industrial sector, the share of manufacturing industries as compared to other branches of industry has also increased substantially. This shows

that the economy is becoming progressively industrialized and its preponderant dependence on agriculture is diminishing. The structural change in the economy has profound implications for future growth rates. The high rate of growth of manufacturing industries leads to an increase of their relative weight which, in turn, is likely to have a decisive influence on the aggregate rate of growth.

As seen in Table III and Figure 2, the share of industrial sector in GDP and GNP has been rising which indicates that it is becoming the leading sector in the economy as envisaged in the Plans. The divergent growth rates of agriculture, industry and services envisaged in the Plan led inevitably to a structural change in the economy which appears to be fairly pronounced despite the short span of time (Appendix).

TABLE III. Sectoral Contributions to GDP (Percentage Shares) (at constant prices)

Sectors	1963	1967
Agriculture	41.2	35.4
Industry	16.8	19.5
Services	42.0	45.1
- Construction	5.6	6.1
- Transport	6.6	6.8
- Housing	3.4	3.7
- Other Services	26.4	28.5
Domestic Income (at factor cost)	100.0	100.0

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

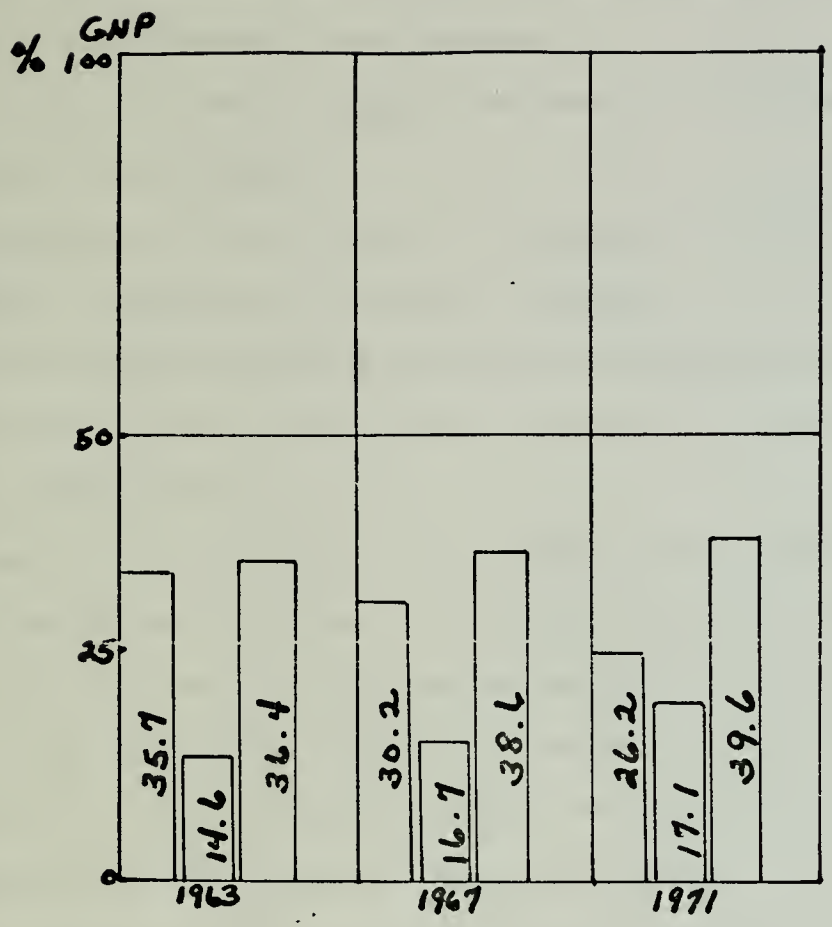


Figure 2. Sectoral Contributions to GNP (Realization).

C. INVESTMENT, SOURCES AND ALLOCATIONS

The investment as proposed in the Second Plan was of a fairly capital-intensive kind compared to the First Plan. For a capital-output ratio of 3.2 (excluding stocks), investment requirements were greater.

The actual overall supply and use of resources is given in Table IV and Figure 3.

The share of fixed capital investment in GNP and its financial resources are shown in Table V.

During the First Plan period, the marginal saving ratio realized was 32.0%, while this ratio was 25.7% for the Second Plan period.

The rate of increase of the public and private sector investments and the share of the public and private sector in total investment are shown in Table VI and Figure 4.

It can be seen in Table VII that the share of the public sector in the total investment was below the target set for the First Plan period. However, during the Second Plan period the share of the public sector exceeded the Plan target.

During the First Plan the capital-output ratio of 2.6 was realized. For the Second Plan period the capital-output ratio of 3.0 was realized.

Most of the investment during the planned period has gone into the fields of transport, energy, housing, education and other services (Table VII) [Ref. 8].

TABLE IV. Use of Resources (As Percentage of GNP).

	1962	1967		1972	
		Planned	Realized	Planned	Estimates
Expenditure for Gross Capital Formation	15.1	18.6	18.4	23.5	21.0
- Fixed Capital Formation	13.7	16.9	16.5	22.1	20.1
- Change in Inventories	1.4	1.7	1.9	1.4	0.9
Consumption Expenditures	88.9	84.2	82.8	78.2	80.4
- Public	11.9	12.7	12.3	13.5	15.2
- Private	77.0	71.5	70.5	64.7	65.2
Total Expenditure	104.0	102.8	101.2	101.7	101.4

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

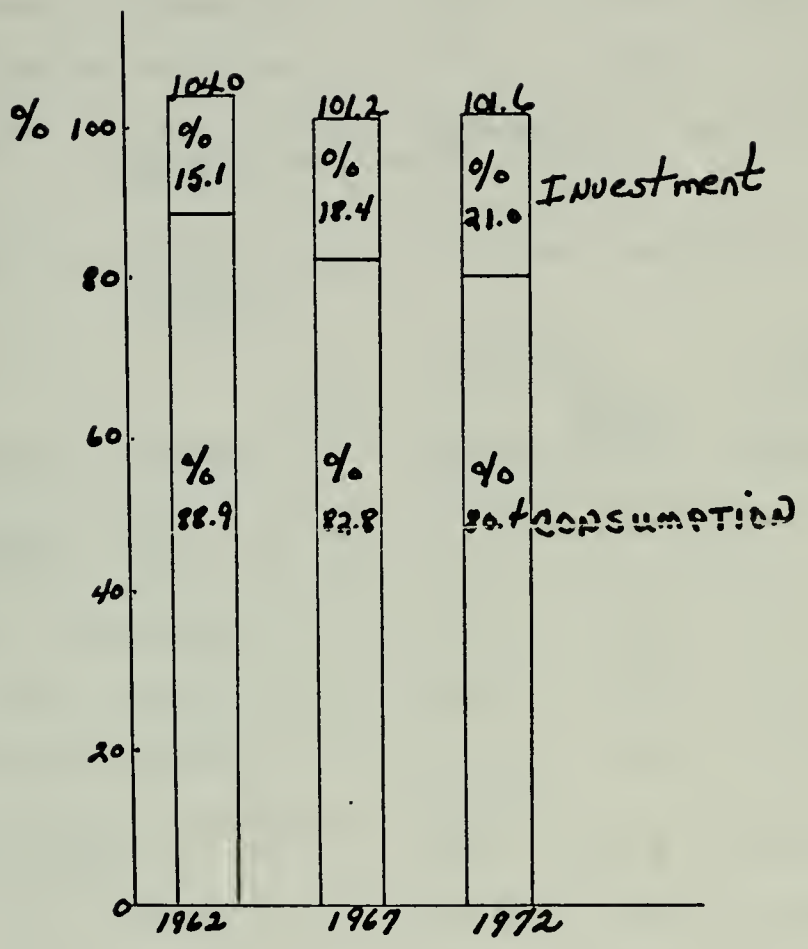


Figure 3. Use of Resources (as percentage of GNP).

TABLE V. Sources of Capital Accumulation (As Percentage of GNP)

	First Plan		Second Plan	
	Target	Realization	Target	Realization
The Share of Fixed Investment in GNP	18.3	16.0	21.3	19.3
- Domestic Resources	14.8	14.2	19.4	18.0
- Foreign Resources	3.5	1.8	1.9	1.3

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

TABLE VI. Fixed Capital Investment by Public and Private Sectors.

	First Plan		Second Plan	
Type of Investment	Target	Realization	Target	Realization
Average Annual Rate of Increase (%):				
Total Investment	10.7	9.4	11.2	10.8
- Public Sector	10.6	8.5	10.0	10.7
- Private Sector	11.0	10.5	12.5	11.0
As Percentage of Total Investment	100.0	100.0	100.0	100.0
- Public Sector	59.9	52.4	52.6	53.1
- Private Sector	40.1	47.6	47.4	46.9

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

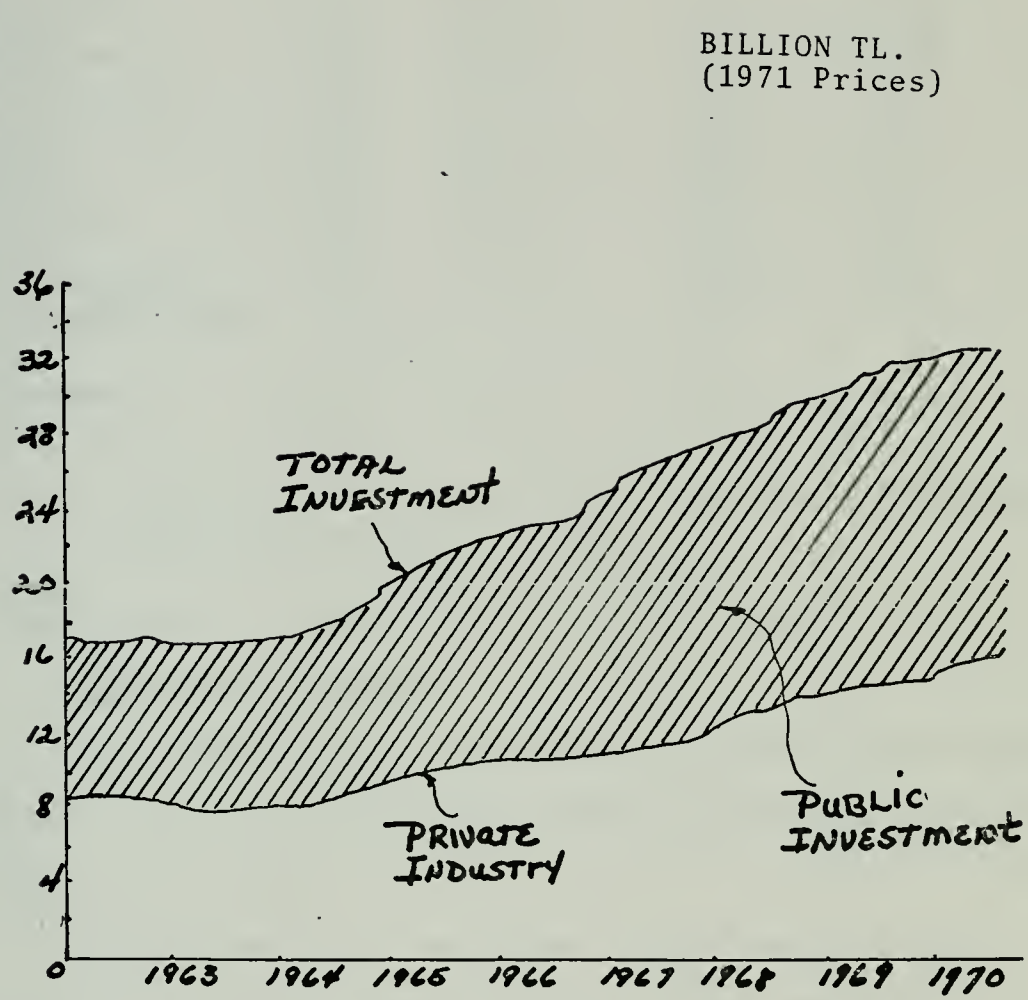


Figure 4. Fixed Capital Investment by Public and Private Sectors (Realization).

TABLE VII. Sectoral Distribution of Investments (As Percentage of Total Fixed Investments).

	First Plan		Second Plan	
	Target	Realization	Target	Realization
Agriculture	17.7	15.3	15.2	11.8
Mining	5.4	5.6	3.7	3.5
Manufacturing	16.9	19.6	22.4	25.7
Energy	8.6	6.1	8.0	8.5
Transportation	13.7	15.6	16.1	16.4
Tourism	1.4	1.3	2.3	2.1
Housing	20.3	22.3	17.9	20.2
Education	7.1	6.5	6.7	4.7
Health	2.3	1.7	1.8	1.5
Other Services	6.6	6.0	5.5	5.5
Development Fund	-	-	0.4	0.1
Total Investments	100.0	100.0	100.0	100.0

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

D. DEVELOPMENTS IN THE FIELDS OF PUBLIC FINANCE

1. The Public Sector

The Public sector comprises the General and Annexed Budgers, Local Administrations, Revolving Funds and State Economic Enterprises.

During the first two plans, total public revenue and expenditures have approached the levels envisaged in the plans. However, the composition of the public expenditures reveals that the realization in the field of public current and transfer expenditures has been above the Plan targets while the public investment expenditures was lower than planned.

The targets and realization of public revenue and expenditures are shown in Table VIII and Figure 5.

	1963 - 1967 Total			1968 - 1971 Total		
	Plan Target	Realization	% Realization	Plan Target	Realization	% Realization
Total Revenue	102,105	92,222	90.3	156,421	145,453	93.0
Tax Revenue	64,107	55,999	87.4	96,199	90,372	93.9
Revenue other than Taxes	6,330	6,193	97.8	7,090	15,306	215.9
Own Resources and Funds	15,519	17,023	109.7	31,551	20,166	63.9
Project Credits and Counterpart Funds	8,443	7,960	94.3	10,196	13,662	134.0
Savings Bonds	3,587	3,335	93.0	5,038	3,423	67.9
Additional Financing	4,119	1,172	41.6	6,347	2,524	39.8
Total Expenditures	102,105	93,904	92.0	156,421	154,844	99.0
Current Expenditures and Transfers	60,190	60,784	101.0	94,156	100,280	106.5
Investment Expenditures	41,915	33,120	79.0	62,265	54,564	87.6
Balance		-1,682			-9,391	

a/ Plan targets are adjusted both in prices and in definition to render comparisons with realized expenditures meaningful.

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

TABLE VIII. Public Sector Revenue and Expenditures (1963-1971)

BILLION TL.
(at current prices)

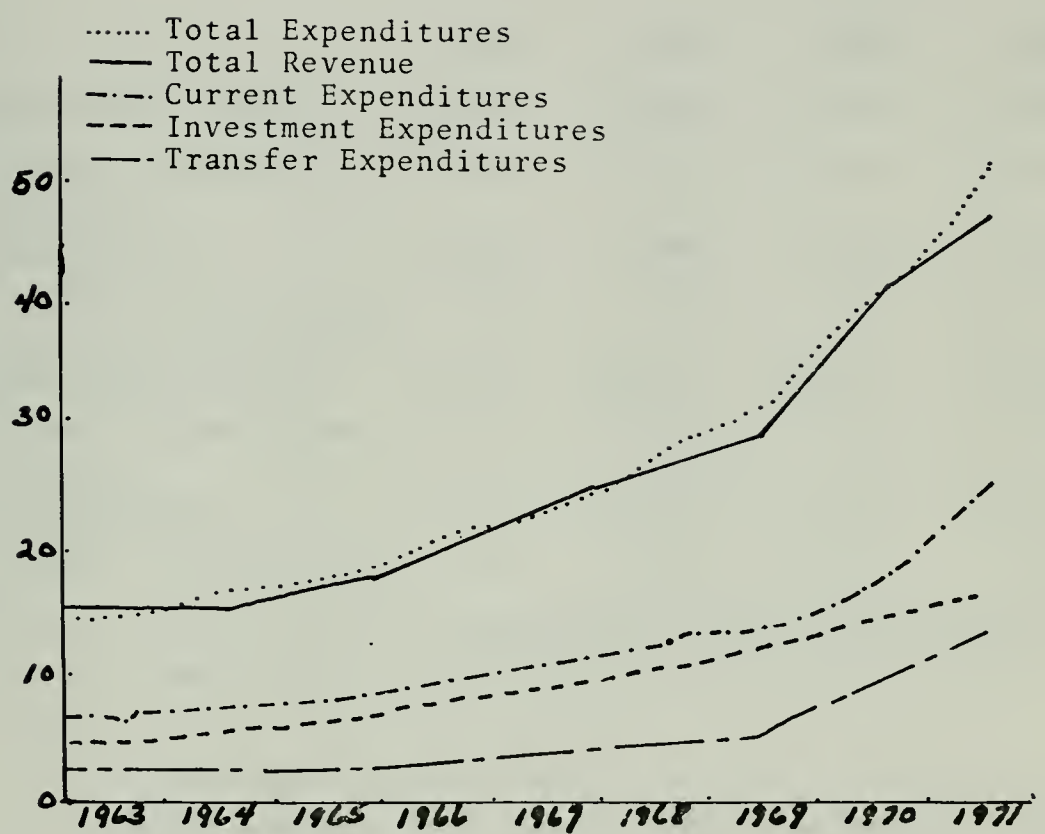


Figure 5. Public Expenditures (1963 - 1971).

2. Changes in the Budget Structure

Table IX below indicates the expenditure position as regards to the Consolidated Budget during the past ten years.

TABLE IX. Consolidated Budget Expenditures.

CURRENT PRICES
TL. MILLION

	1962	1967	1968	1972
CONSOLIDATED BUDGET	9,368	19,130	22,432	51,968
Current Expenditures	4,654	9,736	11,024	26,397
Investment Expenditures	2,375	5,104	6,132	9,455
Transfer Expenditures	2,339	4,290	5,276	16,116
AS A PERCENTAGE OF THE CONSOLIDATED BUDGET	100.0	100.0	100.0	100.0
Current Expenditures	49.7	50.9	49.2	50.8
Investment Expenditures	25.3	26.7	27.3	18.2
Transfer Expenditures	25.0	22.4	23.5	31.0

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

3. State Economic Enterprises

State Economic Enterprises (SEE) have been an effective tool in the implementation of the industrialization programs and activities in Turkey. In spite of various administrative problems that these organizations have faced, their contributions to the adaptation of modern technology, manpower training, creation of employment opportunities,

production and price stability have been of great help to the developmental efforts during the first two plan periods.

The share of SEE's investments in the total public investment and the sectoral breakdown of investment are shown in Tables X and XI, respectively.

TABLE X. The Share of State Economic Enterprises (SEE) in the Total Public Investments.

CURRENT PRICES
TL. MILLION

Years	SEE's Investments	Total Public Investments	Percentage (%)
1963	1,591.4	4,754.1	33.5
1964	1,830.7	5,427.2	33.7
1965	2,115.0	6,079.8	34.8
1966	2,928.2	7,854.9	37.3
1967	3,057.0	9,003.7	34.0
Total	11,522.3	33,119.7	34.8
1968	3,839.4	11,156.4	34.4
1969	4,809.5	12,763.3	37.7
1970	6,173.2	14,442.2	42.7
1971	6,975.0	16,202.5	43.0
1972	11,059.4	21,389.7	51.7
Total	32,856.5	75,954.1	43.3

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

TABLE XI. Sectoral Distribution of Public Investments and SEE Investment in the First and Second Plan Period (%)

	First Plan				Second Plan			
	1963		1967		1968		1972	
	SEE.	Pub.	SEE.	Pub.	SEE.	Pub.	SEE.	Pub.
Agriculture	1.9	16.1	0.5	17.8	9.0	17.7	0.2	10.5
Mining	17.1	6.6	15.8	6.4	10.0	4.5	11.8	7.2
Manufacturing Industry	27.2	10.2	38.8	14.4	41.2	15.6	57.8	31.3
Energy	17.5	8.9	16.2	12.4	18.8	13.8	41.0	13.2
Services	36.3	58.2	28.7	49.0	29.1	48.4	16.2	37.1

These tables show that during the Second Plan period SEE's share was 43.3% in the total public investment; and that during the same period their percentage contribution to the manufacturing industries alone has risen from 41.2% to 57.8% of the total investment undertaken by these organizations [Ref. 8].

E. FOREIGN ECONOMIC RELATIONS

1. Balance of Payments

Table XII and Figure 6 show the balance of payments figures for the period 1963, 1968 and 1971. During this period, foreign trade gap increased continuously. Total exports realized during the period 1963-1971 were above the plan targets. However, the structural change that the plans envisaged with regard to exports was not achieved. In 1970, TL was devaluated to help remove the foreign exchange bottleneck [Ref. 8].

2. Exports

A considerably higher rate of increase in exports along with greater share of industrial goods in total exports was aimed at in both plans. In spite of the positive developments in this respect, agricultural goods still represents the greatest share in Turkish exports.

Table XIII shows the actual export figures during 1963, 1967 and 1971.

3. Imports

Imports realized during 1963-1971, were a little below the target set for this period.

TABLE XII. Balance of Payments.

($ Million)

	1963	1968	1971
I. CURRENT ACCOUNT			
A. Foreign Trade			
1. Exports (fob)	368	496	677
2. Imports (cif)	-688	-764	-1171
Trade Balance	-320	-268	- 494
B. Invisible Items			
1. Interest Payments	- 24	- 34	- 47
2. Tourism and Travel (net)	- 13	- 9	21
3. Workers' Remittances	-	107	471
4. Profit Transfers	- 8	- 32	- 36
5. Service Payments (or Projects)	-	- 15	- 32
6. Other Invisibles (Net)	16	20	2
Invisibles (Net)	- 29	37	379
C. Infrastructure and Offshore	22	9	6
Current Account Balance	-327	-222	- 109
II. CAPITAL TRANSACTIONS			
1. Debt Repayments	-100	- 72	- 91
2. TL Grain Imports	88	-	55
3. Private Foreign Capital	21	13	45
4. Project Credits	61	127	219
5. Program Credits	154	118	89

TABLE XII. continued

		1963	1968	1971
6.	Imports with Waiver	5	22	27
7.	Import with Credits	10	-	-
	Capital Account Balance	239	208	344
	Overall Balance	-88	-14	235
III.	IMF Net Positions	4	27	-
IV.	Reserve Movements (+Decrease)	48	6	-345
V.	Special Drawing Rights	-	-	11
VI.	Short-term Capital Movements	-21	-	-
VII.	Net Errors and Omissions	57	-19	99

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

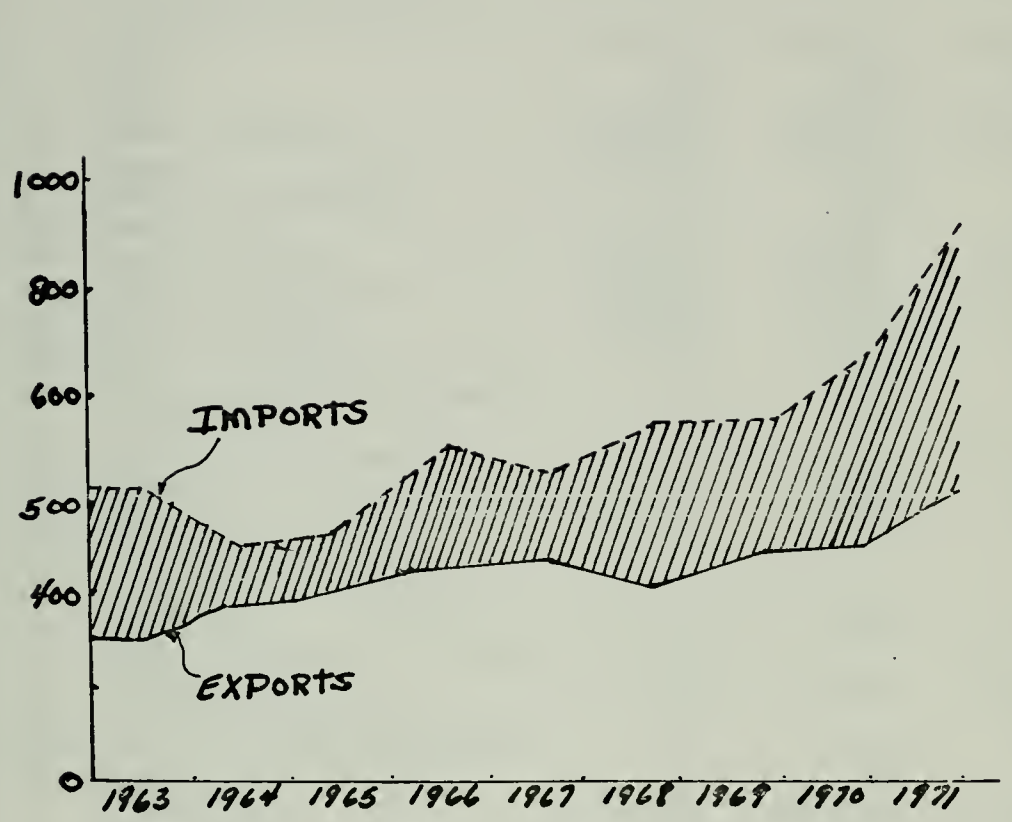


Figure 6. Balance of Payments (1963 - 1971).

TABLE XIII. Exports.

	1963	1967	1971
1. Agriculture			
A. Cereals and Pulses	8,042	6,765	13,763
B. Fruits and Vegetables	87,102	132,371	145,344
C. Industrial Crops	150,442	254,044	288,523
2. Forestry Products	2,279	1,950	3,931
3. Livestock and Sea Products	44,416	31,422	29,742
4. Coal	54	26	192
5. Iron Ore	85	1,437	-
6. Other Minerals	10,298	17,143	36,967
7. Sugar	10,095	6,238	3,113
8. Tobacco Products	7	33	4
9. Beverages	192	551	539
10. Food Industry	32,281	40,891	49,399
11. Textile Industry	3,063	3,075	37,488
12. Wood Products	1,595	1,576	4,895
13. Paper Industry	39	103	138
14. Hide and Leather Goods Industry	64	173	10,625
15. Rubber and Plastic Industry	3	14	865
16. Chemical Industry	2,934	2,799	9,484
17. Fertilizers	-	-	-
18. Petroleum Products Industry	7,713	323	2,479
19. Glass, Ceramics, Tiles Industry	518	487	2,660
20. Cement Industry	-	-	8,785
21. Iron and Steel Products	10	130	325
22. Non-ferrous Metal Products	6,769	20,486	8,665
23. Metal Products	76	121	1,271
24. Machine Manufacturing Industry	4	109	1,155
25. Electrical Machinery and Electronics	-	55	645
26. Vehicles	6	12	252
Others	-	-	5,303
TOTAL	368,087	522,334	676,602

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

Table XIV gives the composition of imports. During this period import substitution was given priority especially in the fields of iron and steel, vehicles, chemicals, paper, metal products, agricultural machinery and durable consumer goods.

TABLE XIV. Composition of Imports.

($ MILLION)

Years	Capital Goods	Raw Materials	Consumer Goods	Total
1963	256.0	327.4	104.2	687.6
1965	197.0	313.0	62.0	372.0
1967	206.0	423.6	35.1	684.7
1969	251.0	431.0	119.2	801.2
1971	340.0	720.8	110.0	1,170.8
1972	450.0	775.0	90.0	1,315.0

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

4. Invisible Items

Tourism and travel income did not reach the levels foreseen in the first two plans. The positive effect of tourism income on the balance of payments had been limited in spite of the improvements during the last two years of the Second Plan Period.

Workers' remittances had been the important factor which contributed most positively towards the improvement of the balance of payments.

5. Foreign Private Capital

Only a small portion of the licenses issued to foreign private capital had been used. Nearly half of these were in the chemicals and rubber industries.

6. Viability

Viability has been one of the main goals in both of the two plans. While the inflow from invisible items such as workers' remittances and tourism as well as the contribution of concessional aid are regarded as short-term measures to reduce the balance of payments gap, it was the increased share of industrial goods in total exports that was being aimed at to reach viability.

During the period 1963-1971 total foreign credits were around $240 million annually.

In this period, the amount of consortium credits agreed upon was $2642 million. The creditors had preferred "Project Credits" to "Program Credits," and 45% of the project credits were given for infrastructure projects [Ref. 8].

7. European Economic Community (EEC) and Regional Cooperation for Development (RCD)

During the planned period, the most important event in the sphere of foreign economic relations was the decision taken for the association with the European Economic Community. The association was established with the Ankara Agreement signed in 1963. The Additional Protocol which defined the procedures during the Transitional Period was signed on 23 November 1970, and envisaged the accomplishment of a "customs union" with the EEC in 22 years, possibly by 1995 [Ref. 8].

Regional Cooperation for Development (RCD) is an economic and cultural cooperation among Turkey, Iran and Pakistan. The Heads of the three States agreed on such co-operation at a Conference held in 1964. The regional co-operation covered the fields of trade, industry, tourism, transport and communication, banking and insurance, and social and cultural affairs. In spite of the progress recorded with regard to the joint purpose enterprises, the cooperation in the field of industry could not reach the desired level due to the very limited trade relations among the member countries.

F. PRODUCTION TRENDS

The production trends in Turkey depicted that a remarkable shift had taken place toward more sophisticated industries and also reflected the conscious developmental policies followed during that period. The economic progress achieved during the first two plan periods has had a visible impact on the common man's material well being, the main indicators of which are presented in Table XV.

As seen from the table, significant improvements took place in the establishment of basic industries in particular and in providing impetus for economic growth in general. Both of these prepare the ground for an accelerated development for the future Plan periods. Considerable progress has also been recorded in electric power, railways, ports, transport, communication and other amenities of life.

TABLE XV. Economic and Social Indicators.

A. ECONOMIC	1962	1972
1. Per Capita Income (%).	243	364
2. % Share of Agricultural Sector in GDP (factor cost).	39.0	28.1
3. % Share of Industrial Sector in GDP (factor cost).	17.0	22.6
4. % Share of Services Sector in GDP (factor cost)	44.0	49.3
5. % Share of Consumer Goods Production in the Mfg. Ind's.	62.3	46.6
6. % Share of Intermediate Goods Production in the Mfg. Ind's.	27.8	39.4
7. % Share of Investment Goods Production in the Mfg. Ind's.	9.9	14.0
8. Per Capita Consumption Expenditure (Thousand TL)	1,681	4,094
9. % Share of Investment in GNP	15.1	21.0
10. Per Capita Steel Consumption (Kg)	20.9	58.5
11. Per Capita Cement Consumption (Kg)	79.0	195.0
12. Per Capita Coal Consumption (Kg)	219.0	302.2
13. Per Capita Cotton Textile Consumption (Kg)	3.1	5.1
14. Per Capita Electricity Consumption (KWh)	118.0	294.0
15. Net Nutrients Per Hectare (Kg)	4.1	33.0
B. SOCIAL		
1. Population (Million persons)	29.2	37.5
2. Population Growth Rate (1960-1965)(1965-1970)	2.6	2.7
3. Labor Participation Ratio	44	38
4. % Share of Workers in Agriculture	77	65
5. % Share of Workers in Industry	8	11
6. % Share of Workers in Services	15	24
7. Ratio of Employment to Supply of Labor Force	92	89
8. Scholarization Rate in Higher Education	3.0	6.8
9. Scholarization Rate in General + Vocational + Technical Secondary Education (2nd cycle)	9.0	17.7
10. Scholarization Rate in Vocational + Technical Secondary Education (2nd cycle)	3.7	6.7
11. Urban population as % of total	27	38
12. Number of persons per doctor	3,200	2,300
13. Number of persons per hospital bed	485	410
14. Number of radios per 1000 person	52	120
15. Per Capita Consumption of Animal Protein (Gr/daily)	16.8	19.3
16. Per Capita Consumption of grains (Gr/daily)	730	674

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

In spite of the positive developments mentioned above, Turkey has not been able to provide a complete solution to its problems. The most pressing social and economic problems facing Turkey upon entry into the seventies are summarized in the following chapter.

VI. BASIC PROBLEMS OF TURKISH SOCIETY AND THE STRUCTURAL IMPEDIMENTS RESTRICTING THE DEVELOPMENT OF THE TURKISH ECONOMY

Although Turkey has become one of the most rapidly developing countries of the world in recent years, certain economic and social structural impediments restrict the rate of development.

A. RAPID GROWTH OF POPULATION

1. Situation

The increase in income, which is an accepted factor in measuring development, and closely related to the increases in population, the utilization of the rising income and the per capita distribution of income cannot be attained when the population increase is close to the income increase. The rapid increase in population results in a disproportionately large percentage of young children and causes much greater consumption needs. In addition, a rapid increase in population effects the quality of investments by increasing the demographic investments for maintaining past living standards to the detriment of other investments. Since the rate of growth in population determines the quality and quantity of investments, the population factor gains an equal importance with savings. Population is a factor which affects economic development from two aspects. From the aspect of size it affects the amount and breakdown of investments, and from the aspect of its characteristics it supplies the required manpower. Therefore, the objective of the population policy of

Turkey is to improve the structure of population and to reduce the rate of population increase to such a level that it will not hinder economic development.

The population policy adopted during the early years of the Turkish Republic played an effective role in increasing the population and in offsetting the fall in population stemming from the First World War and the War of Independence. At that time measures were taken to improve health conditions, to decrease death rates and to increase the birth rate. As a result, population increases far exceeding previous rates were recorded during the last fifteen years. The rate of population increase during the periods 1950-55, 1955-60, 1960-65, and 1965-70 was 27.7, 28.5, 26.1 and 27.3 per thousand, respectively.

A change was deemed necessary in the population policy to slow down the rate of increase, and in 1965 a new population policy was put into effect. The core of this new population policy is "family planning."

According to provisional results of the 1970 census the population was 35.7 million. Table XVI and Figure 7 show the population of Turkey and its rate of growth for selected years. Table XVII shows the rate of growth of population for other selected countries. Because of the rapid population increase and high fertility rate, the density of the young-age group increases. Table XVIII explains the distribution of the three main age groups. The percentage of the 0-14 age group within the total population rose as a

TABLE XVI. Population of Turkey and its Rate of Growth, 1927-1970.

Year	Total Population	Average Annual Rate of Rate of Increase
1927	13.6	-
1935	16.2	2.2
1940	17.8	1.9
1945	18.8	1.1
1950	20.3	2.2
1955	24.1	2.3
1960	27.8	2.9
1965	31.4	2.5
1970	35.7	2.6

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

TABLE XVII. Rate of Growth of Population for Selected Countries (1965-1970).

Countries	Rate of Growth of Population
Denmark	4.6
Sweden	5.8
U.K.	6.0
Bulgaria	7.2
U.S.A.	9.5
Japan	11.0
Spain	11.2
Portugal	13.5
India	26.1
Turkey	27.2
Syria	32.2
Pakistan	32.5
Germany	6.0
France	6.8
Holland	10.8

Source: U.N. "A Concise Summary of the World Population Situation in 1970." Population Studies, No:48 1971.

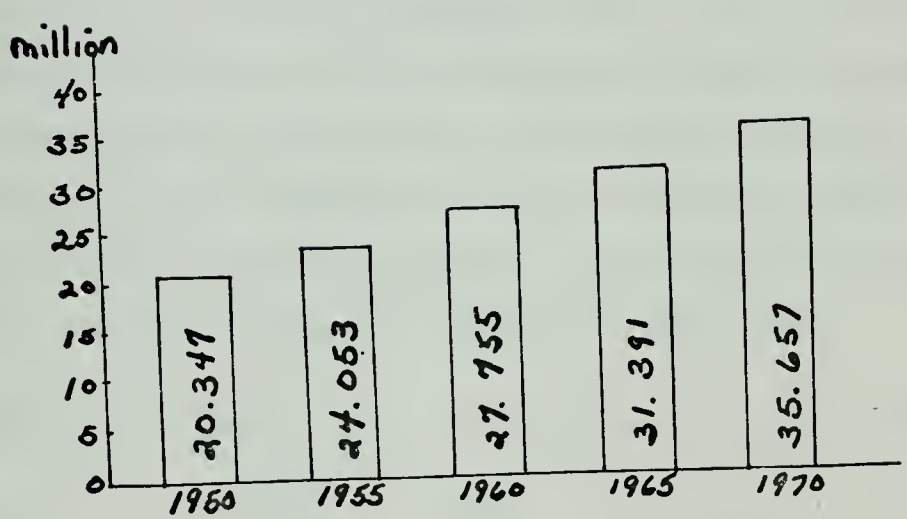


Figure 7. Population of Turkey, 1950-1970.

TABLE XVIII. Distribution of the Three Main Age Groups (%).

Age Group	1950	1955	1960	1965	1970
0-14	38.54	39.37	41.25	41.74	41.01
15-64	58.35	57.05	55.22	54.16	55.21
65 and over	33	3.58	3.53	4.10	3.78
Total	100.0	100.0	100.0	100.0	100.0

consequence of high fertility. Because of the economically unproductive nature of this group, all their burden falls on the economically productive 15-64 age group. In developed countries the 0-14 age group constitutes 25-30% of the total population. In Turkey, however, this ratio is 42%. Therefore, the burden of the economically productive age groups which contribute to economic development increases. This burden, called "dependency ratio," increases under the effect of the rise in population. The changes in the dependency ratio are shown in Table XIX, [Ref. 8].

TABLE XIX. Change in the Dependency Ratio (per thousand).

Age Group	Under 15	Over 65	15-65	Rate of Dependency
1955	9,475	860	13,729	75
1960	11,427	1,029	15,299	81
1965	13,102	1,286	17,003	85
1970	14,001	1,400	20,160	86

Another subject related to the age composition is labor supply. The population increase in Turkey is a very important factor in relation to employment since labor supply

increases as a result of the high rate of population increase. When the employment created falls short of the labor supply, the difference results in an excessive number of people working in agriculture or, in other words, in disguised unemployment. Moreover, it results in open unemployment in the non-agricultural sector.

An analysis of the distribution of labor among the various sectors indicates the economic structure of Turkey. Sixty-one point three percent of the population lives in rural areas, and most of this population works in agriculture. Table XX shows the Turkish population in rural and urban areas, and Table XXI shows population in the main sectors. According to the 1970 census, 63.7% of the economically productive population works in the agricultural sector, 19.2% in the industrial sector and 17.1% in services. The population working in the three main sectors for selected years is shown in Table XXII. The proportions of those working in industry and services has followed a constant upward trend.

TABLE XX. Turkish Population in Urban and Rural Areas, 1927-70

(%)

Year	Urban	Rural
1927	24.3	75.7
1935	24.1	75.9
1940	25.3	74.7
1945	25.0	75.0
1950	24.9	75.1
1955	28.6	71.4
1960	32.0	68.0
1965	34.4	65.6
1970	38.7	61.3

TABLE XXI. Sectoral Distribution of the Work Force of Turkey, 1970.

Sectoral Category	Total Number of Workers	Percentage of Total
Agriculture	8,762,723	63.7
Heavy Industry	103,725	0.8
Light Industry	1,263,642	9.4
Utilities	17,004	0.1
Construction	412,063	3.3
Trade and Commerce	737,066	5.6
Information and Communication	399,254	3.1
Finance and Insurance	190,218	1.7
Social Service and Recreation	1,655,362	12.3
Total	13,541.057	100.0

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

TABLE XXII. Population in the Three Main Sectors (%).

Sectors	1955	1960	1965	1970
Agriculture	82	79	75	64
Industry	9	10	12	19
Services	9	11	13	17

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

The location and size of population settlements creates, among the people forming such settlements, a differentiation in the living patterns, interrelationships and methods used to secure their subsistence [Ref. 12].

In addition to the characteristics stemming from the size of the settlement, social and economic elements have an important weight in the differentiation of the rural and urban populations. These social and economic elements are: industrialization, non-agricultural activities, production

depending on energy, specialization, institutionalization, reduction in the size of the family, deterioration of traditions needed for division of labor, and vertical and horizontal social mobility. Thirty percent of the population lives in cities. There is an increase in the ratio of city population with every successive year. During the period 1965-1970, the annual rate of increase in urban population was 51.5 per thousand, thus, exceeding the rate of increase in total population. The increase in the urban population is the result of migration to the cities rather than the difference between births and deaths.

2. Demographic Characteristics

With a growth rate of 2.7% in 1970, Turkey has one of the highest rates of growth of population. The death rate has decreased as a result of improved health conditions, but the birth rate has not decreased at the same rate. Tables XXIII and XXIV show the birth and death rates of Turkey and developed and developing countries.

The high rate of growth of population leads to a great amount of expenditure in the field of infrastructure as well as various social services.

B. THE HIGH LEVELS OF OPEN AND DISGUISED UNEMPLOYMENT AND LABOR PROBLEMS

In 1972 out of a 14.3 million labor force only 12.7 million are gainfully employed. Out of an average of 440,000 persons entering the working age annually, only 160,000 are able to find jobs in productive activities. Furthermore, it

TABLE XXIII. -Birth and Death Rates and Growth Rate of Population for Selected Countries (1950-70)

(per thousand)

Year	DEVELOPED COUNTRIES			DEVELOPING COUNTRIES			TURKEY		
	Birth Rate	Death Rate	Growth Rate	Birth Rate	Death Rate	Growth Rate	Birth Rate	Death Rate	Growth Rate
1950-60	23.0	10.0	13.0	41.0	21.0	20.0	46.2	19.5	26.7
1960-70	19.0	9.0	10.0	41.0	17.0	24.0	41.2	14.5	26.7

Source: U.N. "1970 Report on the World Social Situation".

TABLE XXIV. - Birth and Death Rate for Turkey, 1950-70

(per thousand)

Year	Birth Rate	Death Rate
1950-55	46.7	21.2
1955-60	45.2	17.9
1960-65	41.3	15.3
1965-70	40.0	13.5

Source: Third Five-Year Plan, State Planning Organization, Ankara, 1972.

is estimated that as of 1971 the number of uninsured and non-unionized workers was of the following order: 600,000 agricultural workers, 3.7 million artisans, handicraftsman and their apprentices, 5.9 million unpaid family workers in agriculture and other independent workers [Ref. 8].

1. The General Situation

In the economically under-developed countries, the reasons of and solutions for unemployment are different from those in other countries. In the developed countries the problem generally arises from a low level of effective demand and from unutilized capacity. However, in under-developed countries the unemployment problem arises not from a high propensity to save but from the lack of it [Ref. 13].

Moreover, it is not of a cyclical nature but has a permanent character. This problem reveals itself both as under-employment and disguised unemployment in the agricultural sector and as open employment and low production in the non-agricultural sectors. With these features, the problem can only be solved on a long-term basis, and it has economic as well as social significance. The ratio of the increase in employment and its distribution among sectors affects the income distribution in an economy with a low level of employment. Open unemployment causes a reduction in wage levels and consequently aggrevates income distribution. Open unemployment in the cities indicates the limitation of employment possibilities in the villages. A shortage of manpower takes place in some regions during the seasons

agricultural activities are heavy. The number of those who have no permanent employment in agriculture for the greater part of the year is still high. These are the seasonally unemployed - they make up the total amount of unutilized productive manpower together with those who are unemployed the whole year, including during the agriculturally active seasons. Economic growth and the solution to the employment problem will be achieved when this manpower, which makes a very small contribution to production, is used to its fullest extent. Seasonal unemployment in agriculture is more significant than permanent unemployment throughout the seasons when it is considered from the standpoint of unutilized capacity. Utilization of this source will not only solve the unemployment problem to a certain extent, but it will also aid in securing a high level of production by a smaller capital. This, more than anything else, is a problem of technology [Ref. 14].

2. Development Trends

During the past decade, 15-64 year group's annual rate of increase was observed to be higher than the increase in employment opportunities. The result was an increasing "unemployment figure." In numbers this was 2.9% and 1.2% relatively. Total unemployment figures (agriculture and industry) were 1,600,000. In 1972, out of a labor force of 14.3 million, only 12.7 million were employed.

Analysis of the employment situation revealed that the biggest question of employment was a surplus of laborers,

and the reason was a shortage of labor rather than a hidden unemployment.

The employment in aricultural sector of 15-64 year group did not change much during 1962-65 and decreased 500,000 in the period 1965-71. The main employment question in this sector was seasonal changes. Additionally, seasonal movement of workers created some social problems.

The employment distribution and progress in the sectors other than agriculture is shown in Table XXV. In recent years of the plan periods in the commerce and service sectors, employment increases were highest.

TABLE XXV. Employment

	1962		1967		1972	
SECTORS	(thousand)	%	(thousand	%	(thousand)	%
Industry	795	37.5	1.175	35.4	1.519	33.1
Building	305	11.5	369	11.1	433	9.4
Commerce	328	12.4	395	11.9	605	13.2
Transportation	258	9.7	325	9.8	450	9.8
Services	768	28.9	1.058	31.8	1.579	34.4

During the period 1967-72, a 6.6% increase in employment was achieved in sectors other than agriculture. That was evaluated as the shift of labor force from agriculture to other sectors. The total employment increase in the 1963-67

period was 985,000 and in the 1967 - 72 period the employment increase was 1,195,000.

The employment of Turkish workers in foreign countries reduced the seriousness of the employment problem. There were 650,000 Turkish workers outside of the country in 1972.

3. Labor Relations and Labor Problems

Although the permanent laborers in 1963 constituted 21.6% of the economically active population, this percentage increased to 29% in 1971, and the number was around 4 million. One million four hundred thousand of those were laborers with social security, 800,000 were government employees and 1.8 million were continuous farm laborers and artisans.

Labor problems emerged and changed according to the individual and collective industrial relations between employee and employer at micro-level and employment; productivity and distribution in macro-level. On the other hand, inequalities among workers changed according to the sector, plant size and regulating rules and laws.

Labor laws, union and collective bargaining laws, were effective especially on the working conditions of laborers in areas other than agriculture. This group was around 1.4 million and most of them had social insurance.

The continuous working group in agriculture was around 600,000 in 1971. Their wages and working conditions were regulated by law. Work force and productivity in the sector, changes according to the region, season and the type of production. According to 1971 statistics average wages were TL

15-20 per day, but there were areas where wages were TL 35-40. In some areas wages were below the legal minimum levels.

Laborers in small economic units were generally working in difficult conditions. The reasons were both financial and difficulty of control. And their employment was almost unregulated.

Strikes generally happened at collective bargaining state. Lockouts have had a limited application during the same period. According to the statistics only 78 employers decided to lockout and 4226 workers suffered from that in this period. The loss of working hours was around 200,000.

Working conditions, working hours, leaves, several types of fringe benefits, and their minimum requirements were mostly determined in relevant laws, but the practices indicated considerable differences between organized sectors and others.

Labor export to other countries is important from the points of view of employment and national income. The Turkish labor force in foreign countries involved positive results in reducing unemployment and earning balance of payments, but its social impacts such as adjustment, living conditions, and divided families were considerable.

C. INSUFFICIENCY OF DOMESTIC SAVINGS AND FINANCIAL INSTITUTIONS

Turkey's domestic savings have not been adequate to meet the financing requirements of investments. Comparatively speaking, savings are small as a result of low per capita income, high and diversified consumption patterns of higher

income strata, inadequate public finance and financial institutions, and the lack of an active capital market.

Generally, in countries like Turkey which are at the threshold of development and which have a rapid increase of population and income, the main factor that determines the development rate is not the lack of demand but the promotion of productive capacity as a consequency of increased investments. The increase in investments depends on the increase in import capacity together with the promotion of domestic savings to support the chosen growth rate. In other words, economic development requires that larger increments out of increasing income be reversed for savings.

In recent years, although there has been a positive development in the Turksih economy and in its social institutions, there are certain structural impediments and insufficiencies that restrict the rapid increase of savings.

The main factor restricting the increase in savings is, without doubt, the low general level of income which in turn determines the level of savings. As a consequence of the low income level, the part which can be set aside for savings after the purchase of necessities is low. On the other hand, the consumption level of the society has risen as a result of the close relations which Turkey has established with the advanced, high income nations of the world.

Although the savings generating entrepreneural group has attained an ever increasing dynamism, it has not yet acquired the anticipated power and expansion. As a result the level of savings is low since the possibilities of using these

savings in the most profitable way are restricted. Moreover, the value judgements of the society and the social security order effect the level of savings. In societies with close family ties, savings are kept at a minimum to be able to preserve the future consumption at a high level.

In addition to all these factors which restrict savings, an effective system to mobilize dispersed savings has not been adequately established. In other words, another reason for restricted savings is the lack of an institutional system to promote savings and distribute them effectively into profitable fields. The organization of such an institutional structure and the strengthening and expansion of financial intermediary institutions appears as the main problem when the rhythm of industrialization has accelerated.

The share of domestic savings in GNP was 11.1% in 1962 adn 19.6% in 1972. The share of total investments in GNP was 15.1% in 1962 and 21.0% in 1972. Table XXVI shows the share of domestic savings and total investments in GNP for several western countries including Turkey. It can be seen that Turkey's domestic savings have not been adequate to meet the financing requirements of investment, and Turkey has a level of domestic savings and investments which is smaller than other western countries.

D. STRUCTURE OF FOREIGN TRADE AND TRADE DEFICITS

Over the period of the First Five Year Plan (1963-1967) merchandise exports increased from the equivalent of $381 million to $523 million, an average annual increase of 6.5%.

TABLE XXVI. The Share of Domestic Savings and Total Investments in GNP (1972).

Countries	Domestic Saving/GNP	Investment/GNP
Turkey	19.6	21.0
Greece	25.5	29.7
Spain	24.7	24.4
Japan	38.6	37.6
Italy	21.3	20.1

Source: U.N. "National Accounts Yearbook, 1972."

Over the Second Five-Year Plan (1968-1972) exports grew from $523 million in 1967 to a provisional $840 million in 1972, or at an average annual rate of 10%. Over the decade from 1962 to 1972 the average annual rate of increase was 8.2%. Had the period been limited to the nine years 1962-71, the average annual growth rate would have been 6.6%, instead of 8.2%, reflecting the provisionally large growth in exports in 1972 of 24.2%. It may be noted that the 1972 figures reflect the deevaluation of the U.S. dollar of December 1971. In 1970 tourism showed a net inflow, apparently for the first time.

In both the earliest (1963) and the latest (1971) years of two plan periods, agricultural commodities overwhelmingly dominated the makeup of exports (Table XVI and XXVII). Agricultural commodities accounted for 72.6% of total exports in 1971.

In the agricultural category cotton had the first place, followed by tobacco and the fruits, nuts, and vegetables group. Both gave indication of some percentage decline, although the absolute value of both items increased substantially over the period.

TABLE XXVII. Composition of Exports and Imports (%).

	1963	1967	1971
a. EXPORTS			
Agricultural Products	79.3	81.5	72.6
Industrial Products	17.7	14.5	21.5
Mining Products	3.0	4.0	5.9
b. IMPORTS			
Investment Goods	37.2	30.1	29.0
Raw Materials	47.6	61.9	61.6
Consumption Goods	15.2	8.0	9.4

Source: Third Five-Year Development Plan, State Planning Organization, Ankara, 1972.

During the 1963-1971 period the most important recipient of Turkey's exports was the EEC group of countries, notably West Germany, followed by Italy and France (Table XXVIII). Outside the EEC Turkey's largest market has been the United States, although that market showed a downward trend over the decade. This was even more noticeable in the case of the United Kingdom, the next largest market. The European communist countries, especially the Soviet Union, showed a considerable tendency during the first plan period to increase its acceptance of Turkish exports. During the second plan period, however, that pattern seems to have been reversed. Because of the enlargement of the EEC in 1973, Turkey's closer association with the EEC, the continued and possibly rising level of financial assistance from the communist countries, and Turkey's own emphasis on export stimulation the future pattern of Turkey's exports was not clear in early 1974.

TABLE XXVIII. Exports by Country of Destination (1963-1971)

IN MILLIONS OF DOLLARS

Country	1963 Value	1963 Percent	1971 Value	1971 Percent
EEC				
West Germany	61.9	61.8	131.0	19.4
Belgium-Luxembourg	10.9	3.0	22.8	3.3
France	16.1	4.4	48.9	7.2
Netherlands	7.6	2.1	24.4	3.6
Italy	43.4	11.7	39.4	5.8
Subtotal	139.9	38.0	266.5	39.3
EETA				
Austria	2.6	0.7	8.8	1.3
Denmark	7.7	2.1	9.5	1.4
United Kingdom	47.1	12.8	32.2	4.8
Sweden	3.8	1.0	5.6	0.8
Switzerland	21.1	5.7	64.8	9.6
Norway	1.1	0.3	2.7	0.4
Portugal	6.8	1.9	8.0	1.2
Subtotal	90.1	24.5	131.6	19.5
United States	49.8	13.5	68.8	10.1
COMECON				
East Germany	5.7	1.5	5.7	0.8
Bulgaria	2.1	0.6	4.8	0.7
Czechoslovakia	9.7	2.6	11.8	1.7
Hungary	2.7	0.7	10.9	1.6
Poland	7.3	2.0	9.8	1.4
Romania	0.8	0.2	4.1	0.7
Soviet Union	7.1	2.0	34.2	5.1
Subtotal	35.4	9.6	81.3	12.0
Other				
Israel	(6.1)	(1.7)	(6.4)	(0.9)
Iran	(0.0)	(0.0)	(4.1)	(0.6)
Lebanon	(18.4)	(5.0)	(44.7)	(6.6)
Japan	(3.0)	(0.8)	(10.5)	(1.5)
Subtotal	52.9	14.4	128.4	19.0
Total	368.1	100.0	676.6	100.0

Source: U.S. Agency for International Development, Economic and Social Indicators - Turkey, 1972.

Over the period 1960-1971, the average rate of increase in exports of 7.1% p.a. is comparatively low (Table XIX). The table shows the average rate of increase in exports for selected countries and Turkey.

TABLE XIX. The Average Rate of Increase in Exports (1960-71).

Countries	Rate of Increase (%)
Turkey	7.1
Greece	11.6
Spain	13.5
Mexico	6.4
Japan	17.7
Italy	13.3
Yugoslavia	12.4

Source: U.N. Yearbook of International Statistics, 1973.

As mentioned above, the exports of industrial products are very low. Table XXX shows the structure of exports for selected countries in 1968.

TABLE XXX. The Structure of Exports for Selected Countries (1968).

Countries	Agricultural Products (%)	Industrial Products (%)
Turkey(1971)	72.6	27.4
Greece	47.5	52.5
Spain	37.5	62.5
Mexico	50.0	50.0
Italy	8.7	91.3
Japan	3.2	96.8
Yugoslavia	20.7	79.3

Source: O.E.C.D., Country Reports, 1969.

Over the period of the first two five-year plans, the value of imports consistently exceeded that of exports. The rate of growth, however, was less consistent (Table XXXI).

TABLE XXXI. Major Imports, 1963-1971 (in millions of dollars)

Commodity	1963	1967	1971
Coffee and tea	2.7	0.7	4.0
Cereals	60.0	2.0	47.3
Animal and vegetable fats, oil and waxes	30.5	5.2	16.9
Mineral fuels	66.2	53.5	121.4
Inorganic chemicals	9.7	17.0	28.4
Organic Chemicals	15.3	31.2	60.2
Pharmaceutical products	3.4	1.4	1.6
Fertilizers	5.6	37.3	32.3
Paints and dyes	8.6	11.9	17.6
Rubber and rubber products	27.6	19.4	20.5
Tires and tubes	(19.4)	(2.9)	(0.8)
Paper	10.3	18.6	34.5
Synthetic fibers	17.2	26.5	14.3
Wool	21.8	11.3	11.2
Cotton	0.1	0.2	0.1
Iron and steel and their products	64.6	46.6	132.4
Aluminum and aluminum products	4.5	9.2	22.3
Machinery	146.1	182.8	262.2
Internal combustion engines	(17.1)	(27.4)	(28.6)
Pumps	(4.8)	(11.2)	(19.3)
Excavating and construction machinery	(13.1)	(23.6)	(27.0)
Agricultural machinery	(3.6)	(4.3)	(20.6)
Electrical machinery	42.7	45.0	64.4
Railway rolling stock and parts	7.2	1.3	2.5
Motor vehicles	68.8	57.2	64.1
Tractors	(4.3)	(1.5)	(2.0)
Automobiles	(2.3)	(3.2)	(8.8)
Trucks and buses	(35.6)	(5.1)	(3.5)
Assembly and spare parts	(24.0)	(45.0)	(49.8)
Vessels	0.1	0.1	29.3
Other imports	74.6	106.3	183.3
Total	687.6	684.7	1,170.8

Source: U.S. Agency for International Development, Economic and Social Indicators - Turkey, 1972.

During the first plan period the value of imports increased by only some 10%, an average annual increase of 1.9%. The export rate was 6.5% a year during the same period. Over the Second Five-Year Plan period, on the other hand, imports increased (provisionally) at an average annual rate of some 16.3%. Over the 1963-72 decade as a whole imports increased at a (provisional) average annual rate of 8.9%, compared with 8.2% for exports. The result was a growing spread between exports and imports.

Turkey's imports are divided into five main groups: food and beverages; industrial raw materials; investment goods; petroleum products; and miscellaneous. Over the period of the first two plans the division remained fairly stable. At both ends of the period the investment goods category included 39 to 40% of the total. Industrial raw materials declined over the period from some 33% in 1963 to around 26% in 1971, foodstuffs from 13% to about 6%, and petroleum products from about 12.5% to around 10.5%. The miscellaneous category took up the slack, rising from about 2% at the start of the first plan to about 15% in 1971. Fertilizer imports increased from 1.4% of total imports in 1962 to 2.7% in 1971.

On the contrary, agricultural commodities which dominate the makeup of exports, industrial products continue to dominate the makeup of imports (Table XXXI). The imports of intermediate and investment goods represent 90% of the total imports.

In the pattern of imports by country of origin over the period of the first five-year plans, two facts standout.

The first is the steep decline that occurred in the position of the United States from 31% of the total in 1963 to less than 15% in 1971 (Table XXXII).

The second fact is the substantial and apparently growing position of the EEC as the primary supplier of Turkey's imports with almost 40% of the total in 1971. As was the case in the pattern of exports, West Germany was well out ahead among the EEC sources of exports to Turkey followed by Italy and France.

After the EEC and the U.S., the U.K. was the next most important of Turkey's suppliers during the period. It was followed, among the non-EEC European and Scandinavian group of countries (European Free Trade Association - EFTA), by Switzerland, albeit at some distance. Imports from the European communist countries increased from about 7% in 1963 to about 13% in 1967 but decreased to 9.7% in 1971. As in the case of exports, the Soviet Union was the most important among the communist suppliers because of the bilateral arrangement that governed its trade with Turkey.

In general, rapid development necessitates an accelerated increase in investments. This relationship becomes more important when carried on parallel to industrialization because the acceleration of investment depends on the concurrent existence of two fundamental factors. On the one hand, savings must be rapidly increased to a level sufficient to support investments. On the other, the import capacity must be increased to permit increased investments and to enable the import of machinery, equipment and raw material

TABLE XXXII. Imports by Country of Origin, 1963-1971 (in millions of dollars)

Country	1963 Value	1963 Percent	1971 Value	1971 Percent
EEC				
West Germany	104.0	15.1	209.9	17.9
Belgium-Luxembourg	9.8	1.4	23.5	2.0
France	34.1	5.0	75.4	6.4
Netherlands	13.3	1.9	26.2	2.2
Italy	34.9	5.1	120.7	10.4
Subtotal	196.1	28.5	455.7	38.9
EFTA				
Austria	8.2	1.2	15.5	1.3
Denmark	3.6	0.5	4.1	0.4
United Kingdom	76.7	11.2	111.5	9.5
Sweden	11.3	1.6	17.5	1.5
Switzerland	8.5	1.2	57.7	4.9
Norway	2.2	0.3	4.2	0.4
Portugal	0.9	0.2	3.7	0.3
Subtotal	111.4	16.2	214.2	18.3
United States	210.7	30.6	172.0	14.7
COMECON				
East Germany	5.7	0.8	7.6	0.6
Bulgaria	3.5	0.5	6.0	0.5
Czechoslovakia	14.1	2.1	11.2	1.0
Hungary	7.4	1.1	11.2	1.0
Poland	7.9	1.1	6.5	0.6
Romania	2.6	0.4	6.9	0.6
Soviet Union	8.8	1.3	64.0	5.4
Subtotal	50.0	7.3	113.4	9.7
Other				
Israel	(8.8)	(1.3)	(1.8)	(0.2)
Iran	(15.2)	(2.2)	(4.6)	(0.4)
Lebanon	(0.3)	(0.0)	(5.1)	(0.4)
Japan	(16.0)	(2.3)	(25.2)	(2.1)
Subtotal	119.4	17.4	215.5	18.4
Total	687.6	100.0	1,170.8	100.0

Source: U.S. Agency for International Development, Economic and Social Indicators - Turkey, 1972.

which cannot be produced at home but which are necessary for the efficient use of established production capacity [Ref. 15].

In the past, with the exception of several years, the long-run trend of Turkish foreign trade is characterized by the fact that it did not increase parallel to the increase in national income. Hence, its effect was to restrict rather than to induce economic development. In other words, one of the main structural impediments to economic growth in the past was the fact that the foreign trade sector or, to use a more general concept, the balance of payments operation, could not keep up with the general economic development.

In fact, between the years 1962-1966, GNP increased by 29.5% while the volume of foreign trade only increased by 20.8% with a resulting reduction in the total share of imports and exports in GNP. In the long-run this situation can be seen more clearly. Exports exceeded the level attained in 1953 only in 1964 while the 1966 exports were only 23.8% above the level of 1953. If, as a general rule, it is poltulated that the increase in the volume of foreign trade should exceed the increase in income, it can be seen that during this period the foreign trade sector had a restricting effect on economic development. If one considers that in the same period of 1962-1966 total investment at constant prices nearly doubled, it can be seen clearly that the foreign trade sector had a restricting effect on economic development.

As a result, recourse to foreign loans was necessary since foreign trade could not keep up with the pace of rapid development. However, 55% of the foreign aid secured between 1962-1966, a figure amounting to $1372 million, was used for the payment of principal and interest of former debts. For this reason, foreign aid, particularly in recent years, could not sufficiently help remove the impediments to rising the import capacity.

The necessity of a commensurate increase in the foreign trade volume as industrialization accelerates has become increasingly apparent. Although the rather large population, land area and variety of natural resources that Turkey possesses reduces the dependence of economic development on foreign trade, in the near future, when development and industrialization accelerate, the ability to increase the import capacity will be a very important factor in determining the growth-rate.

The past decade has witnessed a significant acceleration in Turkey's rate of economic expansion. Despite the evident success of economic planning and responsible monetary management, the balance of payments situation has been a constant source of anxiety to the authorities throughout the Plan periods. Basically, the problem is one of an over-valued exchange. The lira was devalued from 2.8 TL. to 9 TL. to the dollar in 1958 and a "tourist rate" of 12 TL. to the dollar was introduced in 1968. One recent linear programming analysis based on Turkey's 1963 input-output

table suggested that, on the assumption that all imports were competitive to domestically produced goods, the lira was over-valued by 40% and, on a conservative estimate of the extent to which some imports were complementary to the production of Turkish commodities, over-valued by 95%. Other observers have also concluded although not on the basis of such a technical analysis, that the lira has been over-valued by a substantial margin.

The First Five-Year Development Plan, 1963-1967, was prepared on the assumption that foreign aid over the period would average 3.5% of the GNP. The Aid Consortium for Turkey was established in 1962 under the aegis of the Organization for Economic Cooperation and Development to provide this assistance, but aid delivered only averaged 1.8%. In the event, exports exceeded targets in most of the First Plan years, although falling below targets in the first two years of the Second Plan, 1968-1972. The good export performance was insufficient to overcome the problem caused by the shortfall in foreign aid and serious liquidity problems arose. Table XXXIII shows Turkey's international liquidity position since 1962.

TABLE XXXIII. International Liquidity (Millions of U.S. $)

1962	189	1968	I	118
1963	178		II	123
1964	141		III	112
1965	141		IV	123
1966	131	1969	I	109
1967	119		II	149
1968	123		III	186
1969	245		IV	245

Source: International Monetary Fund International Financial Statistics, February 1971.

The picture presented in the table is misleading as the high degree of foreign trade regulation which exists prevents balance of payments pressures from being manifested in liquidity drains; both imports and exports from Turkey are subject to control. Furthermore, accounting methods were changed in mid-1969 resulting in serious incomparability of the last two figures shown in the table. The continuous over-valuation of the lira has necessitated both quota restrictions and high tariffs on imports and special incentives to exporters. The import regime, which was tightened still further in 1968, consists of a detailed set of regulations designed to keep the volume of imports within the projected foreign exchange acquistions. Ninety percent of all Turkish imports are "planned," i.e., specified in the semi-annual Import Programs or in bilateral agreements. The State Planning Organization is responsible for advising the Ministry of Commerce on the details of the Program. Depending on its priority, a commodity may be assigned to the liberalized list or to the quota list. The State Planning Organization's Annual Program for 1969 proposed that a number of additional commodities such as tyres, pharamecuticals and motor vehicles should be added to the liberalized list. The value of imports on the liberalized list planned for 1970 has been raised. The increased rates of prior deposits that importers have to place in blocked accounts at the Central Bank and the long delays before requests for currency are granted, running at 30 and

43 weeks for industrial and merchant importers, respectively, in mid-1970, have made liberalized imports almost as difficult to obtain as those on the quota list.

Exports, as mentioned above, have generally done better than planned. Nevertheless, the shortages of foreign currency for crucially important capital equipment purchases places a strong premium on the expansion of the country's export activities. Around 75-80% of Turkey's exports are in the form of unprocessed agricultural products. The traditional exports - tobacco, cotton and hazelnuts - have not found buoyant markets in the recent past and diversification is being encouraged. With the assistance of the World Bank, exports of fresh fruit and vegetables, processed food and livestock are planned, together with a considerable increase in manufactured exports. In the latter field, however, problems of quality, standardization and market research are still serious. Rebates and preferential interest rates on bank loans, in addition to the priority on import licenses given to foreign exchange earners, do not appear to provide sufficient incentives at present to stimulate rapid developments in the export field. High raw material and capital costs coupled with wage bills not much lower than those faced by comparable European firms have not given Turkish exporters any significant competitive advantages. A heavy drain on foreign exchange receipts appears to be the result of a substantial amount of smuggling. In the final analysis one is forced back to the problem of an over-valued lira.

Turkey's invisible earnings have grown considerably in the past decade, primarily as a result of remittances from Turkish nationals working in Europe (predominatly Germany); the rate of 12 TL. to the dollar applied for such transactions. The tourist industry has only just started in earnest and, so far, tourist receipts have been rather disappointing. However, the introduction of a high-grade petrol in 1969, the expansion in the number of good hotels and clean camping sites along the Aegean and Mediterranean coasts, as well as much work on excavating and restoring the wealth of Greek and Roman remains in these regions, augurs well for the industry's future.

The inflow of private foreign capital in recent years has increased substantially. Since 1967, the process by which applications are dealt with by the Department for Investment Implementation and Encouragement has been made much less cumbersome. Although there is relatively small amount of foreign capital in Turkey at present, the Government's new policy to strengthen heavy industry in part with private foreign capital and the simplified permit formalities suggest that there is scope for large increases in the future.

The Turkish economy appears to have been following a satisfactory development path in 1969 with a growth in GNP of 6.3% and a rate of inflation of 6.0%. The balance of trade was -$264m. compared to -$162m. in 1967 and -$268m in 1968. Despite a disappointing net deficit on tourism, the rapidly increasing inflow of Turkish workers' remittances which reached $141m in 1969 financed the deficits on tourism

and travel (-$5m.) and on interest payments (-$39m.). It reduced the current account deficit to -$215m. compared to -$115m. in 1967 and -$242m. in 1968 [Ref. 8].

The current account deficit was more than offset by the capital account surplus. Despite the ever-growing foreign debt repayment item (-$108m.), this surplus stood at $259m. in 1969 compared to $175m. in 1967 and $235m. in 1968. The overall favorable balance of $44 ($60m. in 1967 and $11m. in 1968) was offset by a negative net errors-and-omissions figure resulting in no change in the reserve position. However, new accounting practices with respect to the reserves makes this a meaningless figure. In terms of the composition of this aggregate picture there was a significant rise in the proportion of trade conducted with EEC countries, whilst the proportion of trade undertaken with both the USA and the UK declined.

Despite an apparently satisfactory growth and price record over the past few years, both the O.E.C.D. and the I.M.F. have been dissatisfied not only with Turkey's balance of payments situation but also with the Government's fiscal and monetary management. In 1969, the O.E.C.D. required an undertaking from the Government that the volume of domestic credit would rise only marginally; the I.M.F. has for some time set guidelines for the extent to which the Central Bank may lend to the State Economic Enterprises. Pressure was also brought to bear for the enactment of the law limiting the proportion of the Budget which may be financed by the Bank.

It seems paradoxical that Turkey's balance of payments position should have been regarded as critical in mid-1970 when the average rate of inflation had been moderate and exports had done well. Two factors are primarily responsible for this situation: the disappointing foreign aid record and the initial over-valuation of the lira at the outset of the planning period. Furthermore, the rapid growth in the real level of GNP has stimulated demand for imports of capital equipment to such an extent that delays in the acquisition of foreign exchange for these purchases now appear to be the major bottleneck to industrial expansion.

The Turkish authorities have viewed another devaluation in the same light as the worsening terms of trade which have taken place over the past two decades and have tried to resist international advice and persuasion. However, with the O.E.C.D. aid appropriations seriously delayed and the I.M.F. exerting strong pressure, the Government announced a devaluation on 10 August 1970. The lira was devalued from 9TL. (and from the tourist rate of 12 TL.) to 15 TL. to the dollar. A set of monetary and fiscal measures were initiated at the same date to check any inflationary pressures which might otherwise have been generated in its wake.

It is impossible at this time to predict whether or not the devaluation and accompanying measures will have any significant impact either on the long-run balance of payments position or on the structure of the economy. The fact that the lira is still over-valued suggests that important structural changes are unlikely to occur as a result of this action.

Nevertheless, there are certainly a number of industries which might now become export oriented. This will take time, and the relative price movements in Turkey vis-a-vis the rest of the world will be a critical factor over the next five years. Furthermore, much will depend on the effort which is put into marketing already mentioned as a serious constraint to the existing export activities. With sufficient attention paid to these two factors, the devaluation may act as a moderate stimulus to exporting which is to receive further encouragement from the provision of additional credit facilities at subsidized interest rates. However, whether self-sufficiency by the mid-1970's will be achieved, even if such favorable conditions are present, is questionable.

E. LOW LEVEL OF INCOME AND ITS UNBALANCED DISTRIBUTION

The per capita income of $364 in 1972 is the lowest among European countries. This is 1/6 of average income level of EEC countries. Table XXXIV shows per capita incomes for EEC countries.

TABLE XXXIV. Per Capita Income for EEC Countries, 1969

Country	Per Capita Income ($)
Germany	2190
Italy	1400
Holland	1760
Luxenburg	2420
France	2460
Belgium	2010
Greece	840
Turkey	350
Ireland	1110
England	1820
Denmark	2310
Norway	2160

Although the development plans based on the principle of justice in all areas, unequality in the size distribution of income has remained a major social and economical problem throughout the plan periods. For the lack of sufficient data no definite conclusions can be drawn. However, according to a survey held by O.E.C.D. in 1968, a minority of 19% of total population received 57% of total income during the year 1967.

F. PRODUCTIVE STRUCTURE AND TECHNOLOGY

Another important factor restricting the development is the lack of "economic organization." More clearly, the present system for the transfer of potential savings to more productive fields and for the effective use of investment opportunities is not operating efficiently, and the appropriate organization to provide such an operation has not yet been established.

1. Agricultural Organization and Efficiency

To a great extent, economic development depends on agriculture. The nature of the changes in agricultural production has a two-fold effect on the Turkish economy and society: (1) the general economic development is unstable because of its dependence on weather conditions, (2) this instability creates various economic and social problems within the sector.

It is impossible to remove completely the fluctuations in agricultural production and prices. However, by removing the factors that make these fluctuations more severe the unfavorable effects on economic development can be reduced. The most important factor that increases agricultural prices

and production instability in Turkey is the malfunctioning of the agricultural organization.

The most important factor restricting agricultural development is the mobility of farmers to form large organizations of their own. The trend of small land-owners to integrate by means of cooperative is not widespread.

2. Industrial Organization and Efficiency

There are organizational bottlenecks that greatly restrict development and efficiency in the industrial sector.

The basic investment goods industry is inadequate. In the manufacturing industry particularly, there are many entrepreneurs actively operating small, separate enterprises. Hence, it is not possible to produce at even the minimum economic capacity (optimum operating size) and to benefit the rapidly developing production and management techniques of the industrialized countries. In addition, facilities for making and applying industrial research have not been developed.

The coordination and organizational difficulties of public enterprises producing industrial goods have not been eliminated. To increase the productivity of public industrial enterprises that were established through large investment, specialization in production, development of technical services and efficiency in marketing activities are necessary.

Tables XXXV and XXXVI show that Turkish industry is mainly composed of consumption goods, and there is no significant increase in the industry of investment goods in the last ten years term.

TABLE XXXV. - The Composition of Production Industry (%)

Production	1962	1967	1972
Consumption Goods	62.3	52.9	46.6
Intermediate Goods	27.0	35.4	39.4
Investment Goods	9.9	11.7	14.0
Production Industry	100.0	100.0	100.0

Source: Third Five-Year Plan, State Planning Organization, Ankara, 1972.

TABLE XXXVI.-The Composition of Production for Selected Countries (1967) (%)

Production	Turkey	Developed Economies	Developing Economies
Consumption Goods	52.9	20.0	39.0
Intermediate Goods	35.4	35.0	36.0
Investment Goods	11.7	45.0	25.0
PRODUCTION INDUSTRY	100.0	100.0	100.0

Source: U.N., "Statistical Yearbook, 1970".

3. Services and Infrastructures

Social and economic infrastructure investments play an important role in the acceleration of development. Although Turkey has reached a relatively high level of infrastructure investments when compared with similar countries, the rate of economic development that the Turkish economy had attained by the beginning of the seventies and the objectives set forth for the future; necessitate the strengthening of the social and economic infrastructures.

G. A COSTLY AND SLOW-FUNCTIONING PUBLIC ADMINISTRATION

Public administration, although in some places modern, is on the whole outdated. Coordination and cooperation in joint decision making and efficient operation have not been achieved. There is too large an increase in numbers and salaries of government employees. There is also an imbalance in geographical distribution of government employees. Local authorities cannot meet the people's needs with their own resources. There is also no clear-out division of duties between local and central government authorities.

H. PROBLEMS OF SETTLEMENT AND INFRASTRUCTURE

Migration to urban areas from rural areas between 1960-1965 was 880,000 and between 1965-1970 was 1,300,000. The development of urban units showed that migration had been towards the urban units which have a population higher than 50,000 and large urban centers. In 1970 the ratio of population of three large cities with a population higher than

500,000 to the total population was 31.1%. The ratios of urban population to the total population were 26.3% in 1960 and 35.9% in 1970.

The state has not been able to meet the infrastructural and social requirement of the rapid urbanization of the past two decades. On the other hand the needs for extra roads, drinking water, electricity, etc. in the rural areas have not been met by the local authorities. As far as the public sector is concerned, the heavy pressure of demand for services in the rural areas has been a factor to prevent further emphasis on production-oriented investments [Ref. 17].

I. INADEQUATE EDUCATION SERVICES

In general, the formal education system does not conform to the needs of economic and social development, nor is it susceptible to changes. The informal education system also has proven inadequate to improve the manpower productivity necessary for higher production. Primary education does not provide the basic needs for further education or for a practical life. Only 84% of the population between the ages of 7 and 12 years attend primary school education. Secondary schools, on the whole, simply prepare children for higher education, although it is recognized that vocational and technical education is necessary at this stage. Only 6.8% of the population between the ages of 19 and 22 years attend higher educational institutions. Besides, higher education does not meet the manpower requirements of a rapid development.

VII. CONCLUSIONS

The rate of economic development accelerated significantly between the pre-planning (prior to 1963) and planning periods (since 1963). Real national income increased by 50% since the beginning of plan periods. In the course of rapid growth, however, serious dislocations developed which were reflected in inflation and balance of payments difficulties, and which have increasingly interred with continued economic development. The Turkish economy has been suffering from the growing pressures of excess demand, resulting mainly from an investment effort exceeding the real resources available to finance it. An ambitious investment drive was launched, but no effort was made to restrain consumption demand in the face of rising incomes.

A fact of particular significance for Turkish economic development was the very limited increase in savings, voluntary or through taxes, out of rising agricultural incomes. This can be attributed to certain features of the Turkish economy and the government's fiscal and monetary policies.

There had been a strong relationship between the rate of growth and the ICOR's (incremental capital output ratio) throughout the entire period, and highly significant structural change in the relationship between the periods. The ICOR has shown a strong negative relationship with respect to the rate of growth in GNP.

The ICOR in Turkey has become increasingly influenced by the public sector, as the proportion of public investment

in the total has increased. This, in turn, might be attributed to the project appraisals conducted by the State Planning Organization and implemented by the public sector over the planning period. Also, that gives a valid implication that the fall of ICOR has been significantly influenced by the public sector, as project evaluations are conducted more efficiently.

In addition to failing to raise public revenue as much as planned (primarily due to the government's refusal to implement the planned agricultural tax reforms), the principal shortcomings in policy formulation and execution were an over-valued currency which necessitated exchange controls and distorted the allocation of resources, the continued reliance on price regulation, and the failure to reform adequately the State Economic Enterprises.

The lack of well organized investment opportunity surveys remained a major bottleneck, and was one of the reasons for planned investment in the public sector failing to reach the planned level, and for the allocation of private investment diverging from the intended pattern.

The amounts of financial assistance offered were smaller than planned and the terms harder. Although nearly one-half of financial aid offered was necessary to make repayments on already outstanding debts, the share of foreing aid and foreign borrowing has been gradually reduced during the proceeding plan periods. This considerably reduced the dependence of the Turkish economy to the foreign resources.

The balance of payment deficit over the plan periods was less than had been forecasted. Exports were better than had

been expected, not due to an increase in sales abroad of industrial goods, but rather attributed to an expansion of agricultural products such as cotton and tobacco. Invisibles too were better than had been forecasted, despite higher interest payments and the failure of tourist revenues to improve. The main item on the invisible side which made the difference was the unforeseen fast growth of workers remittances.

The recent upsurge in the growth rate has been caused primarily by the substantial increase in the level of investment. The failure to attain the 7% rate of growth in GNP was largely due to delays which occurred in the implementation of investment projects.

Although the structure of the economy retained the agricultural characteristics during the plan periods, increases took place in the relative share of the industrial and services sectors. During the plan periods, a structural change in the direction foreseen in the plans, was realized, although at a lower rate. Economic development in every phase was influenced by agricultural output due to the current weight of the agricultural sector in the economy.

The Turkish governments did not have a strong policy to create enough working areas to employ the expanding labor force or to reduce the rate of the growth of population. The excessive growth of population started to cancel the rate of the growth of GNP significantly.

A costly and slow-functioning public administration effected the rate of growth of the Turkish economy inversely.

APPENDIX A: PATTERNS OF ECONOMIC DEVELOPMENT AMONG COUNTRIES IN MARKET ECONOMIES AND TURKEY

Historical studies of some countries (variation over time) and comparisons among countries at different income levels (variation among countries) proved that there are uniform patterns of change in the structure of production, as income levels rise.

This study consists of estimation of multiple regressions describing intercountry growth patterns for major sectors (industry and primary production) and country groups, which provide a more satisfactory treatment of the effects of differences in income level scale.

A. THE CROSS-SECTION SHARES IN PRODUCT (VARIATION AMONG COUNTRIES)

A development pattern may be defined for a given country by the time paths of variables describing production, international trade, and some other variables in each sector. A comparable cross-section pattern may be defined by the variation in the same set of variables, among countries at a given moment in time. The two patterns can be compared by expressing both as functions of per capita income and other variables.

The intercountry pattern of any year is generated by the intertemporal development patterns of all countries in prior years. If each country's pattern is dominated by a set of universal factors common to all, the cross-section relations will reveal some of the characteristics of these underlying factors.

The universal factors suggested in studies to explain the intercountry uniformities include:

1. Similarities in production relations.

2. Similarities in domestic demand.

3. Similarities in opportunities for trade and international capital movements.

In a world in which growth took place mainly through capital accumulation, without much change in tastes, technology, or economic organization, it is possible to observe common features of each country's development that would carry over directly to the cross-country pattern. The addition of changing technology and organization makes the relation betwen the two patterns less predictable. While the introduction of new products may cause shifts in demand functions that modify, or even reverse, the existing intercountry pattern. For the purpose of empirical analysis, the effects of these variables on the patterns considered negligible.

An investigation will be conducted to determine which factors in intercountry relations can be adequately reflected by adding variables in a multiple regression analysis, or will require different functional forms for the equations.

The sample of 54 countries in market economies is distributed over the range, from least to most developed, with the advanced countries comprising only a quarter of the total (Table XXXVII).

The dependent variables in the regression equations are the shares of two major components in GNP:

TABLE XXXVII. Data for Econometric Analysis (1960)

LARGE COUNTRIES (19)		PCG	POP	SOI	SOC	SOP	SME	SPE
Nigeria	1	57.5	48.9	7.3	9.9	66.3	0.7	14.1
Burma	2	59.1	20.3	14.1	14.7	36.6	0.5	16.5
Pakistan	3	67.5	94.0	10.6	18.4	54.7	1.5	8.3
India	5	73.5	397.3	17.5	14.3	50.6	3.0	2.6
Thailand	8	87.6	24.3	15.6	15.4	41.0	0.4	19.7
S. Korea	12	128.0	23.5	13.5	11.5	39.4	0.8	2.9
Brazil	15	155.8	60.4	21.3		30.7	0.9	7.5
Turkey	20	187.5	25.3	19.6	13.2	45.5	0.3	6.5
Philippines	21	190.7	24.9	18.6	8.0	39.5	1.0	14.9
Mexico	30	316.9	31.7	25.3	14.5	25.8	3.8	7.4
Japan	33	344.0	89.9	31.8	26.4	21.7	10.6	1.4
Spain	35	349.4	29.9	28.8	19.5	27.6	3.3	5.2
Argentia	37	547.1	19.4	35.4	19.7	19.0	0.8	10.3
Italy	38	550.9	48.6	35.7	20.4	21.5	10.2	2.7
W. Germany	46	1057.2	53.5	45.4	21.9	13.4	15.8	7.4
France	49	1179.3	44.3	43.3	17.8	12.0	11.4	2.6
U.K.	51	1259.9	51.8	41.2	14.2	7.6	18.5	1.4
Canada	53	2046.3	16.4	32.7	23.2	11.7	9.2	10.0
U.S.A.	59	2710.1	170.4	33.5	16.8	7.8	3.2	1.2

TABLE XXXVII. continued

SMALL INDUSTRY-ORIENTED COUNTRIES (18)								
Haiti	4	70.7	3.7	13.1	7.0	49.9	1.0	12.9
Bolivia	10	120.2	3.3	14.4		45.3		
Taiwan	11	125.8	9.6	22.8		34.3		
Paraguay	16	156.6	1.6	19.5	15.5	37.9	3.5	12.0
Tunisia	18	177.2	4.0	17.9	15.3	25.6	0.6	11.4
Peru	19	182.2	9.4	21.6	23.1	29.7	0.7	13.0
Algeria	25	214.4	9.7	18.0		29.5		
Portugal	26	239.8	8.7	35.6	15.3	29.2	11.4	8.3
Jamaica	32	329.2	1.5	25.4	20.8	20.5	3.6	26.6
Greece	34	344.4	8.1	21.9	16.7	32.7	1.0	7.8
Uruguay	36	442.5	2.8	25.6		20.9		
Israel	40	602.9	2.0	30.7	27.8	12.0	7.9	5.5
Puerto Rico	41	677.6	2.3	26.2	23.0	15.8	4.7	6.1
Austria	42	732.6	7.0	46.4	21.1	14.9	14.8	4.8
Netherlands	43	846.5	10.8	36.9	22.3	14.0	26.5	15.6
Finland	45	891.3	4.3	39.3	27.0	22.5	12.3	12.3
Belgium	48	1175.1	9.0	34.7	17.7	10.5	25.3	3.4
Norway	50	1184.2	3.5	33.8	30.3	13.4	21.7	15.2

TABLE XXXVII. continued

SMALL PRIMARY-ORIENTED COUNTRIES (17)								
Kenya	6	74.8	7.4	12.8		44.4		
Cambodia	7	86.3	5.1	10.6		50.6		
Congo	9	92.4	12.5	13.1	26.3	51.4	0.8	32.9
Ceylon	13	131.4	9.1	11.2	15.4	50.7	0.8	33.8
Rhodesia	14	138.0	9.3	16.9	26.3	42.8	3.0	14.8
Ecuador	17	164.8	3.9	18.9	15.3	39.9	0.6	16.0
El Salvador	22	191.2	12.3	13.1	11.2	37.6	0.9	19.7
Iraq	23	201.5	6.4	12.9	18.9	55.6	0.6	45.0
Honduras	24	202.0	1.6	16.4	14.4	47.0	1.0	18.4
Gualemala	27	257.3	3.4	15.4	11.3	31.0	1.2	10.4
Colombia	28	258.7	13.1	19.7	19.9	39.8	2.7	12.7
Malaya	29	267.8	6.6	11.7	13.2	44.6	1.4	39.2
Costa Rica	31	326.9	1.0	15.6	17.4	38.3	0.7	18.9
Chile	39	557.0	7.1	20.9	10.5	17.9	5.7	6.1
Venezuela	46	847.7	6.5	18.1	27.4	36.9	3.5	32.2
Denmark	49	1168.3	4.5	36.1	17.3	15.7	9.9	20.1
Australia	52	1458.8	9.5	35.7	24.7	18.6	0.9	12.6

Source: U.N. Yearbook of National Accounts Statistics, 1969.

1. y_p: share of primary production-SOP (agriculture and mining

2. y_i: share of industry -SOI (manufacturing and construction).

The explanatory (independent) variables are:

1. x: Per capita GNP (in 1960 dollars) - PCG

2. N: population (in millions) - POP

3. k: share of gross fixed capital formation in GNP (I/Y) - SOC

4. x_m: share of manufactured exports in GNP (E_m/Y) - SME

5. x_p: share of primary exports in GNP (E_p/Y) - SPE.

In order to measure the proximity and parameters of the relationship between dependent variables and independent variables, an analysis was carried out of the way in which these figures were coupled in the case of all countries in market economies for which the required data were found available. The year 1960 was chosen because the required data were available for the largest number of countries.

For quantitative comparisons of economic structure, the values of the variables are used as a basis for subdividing the sample into groups of countries that are expected to have more homogeneous growth patterns. This approach was preferable when there was a complex interaction among the explanatory variables that may have required different functional forms, although it had the disadvantage of reducing the size of the sample.

Linear functions were not satisfactory to reflect the relationship between dependent variables and independent

variables, when they were compared to the logarithmic functions: standard errors of estimate for each pair of variables were too high, and scatter diagrams of each pair of variables were not satisfactory.

Logarithmic equations below explain the relationships better than the linear equations mentioned above.

(a) $\ell ny = a + b_1 \ell nx$

(b) $\ell ny = a + b_1 \ell nx + b_2(\ell nx)^2$

(c) $\ell ny = a + b_1 \ell nx + b_2(\ell nx)^2 + b_3 \ell nN$

(d) $\ell ny = a + b_1 \ell nx + b_2(\ell nx)^2 + b_3 \ell nN + b_4 \ell nk + b_5 \ell nx_m + b_6 \ell nx_p$

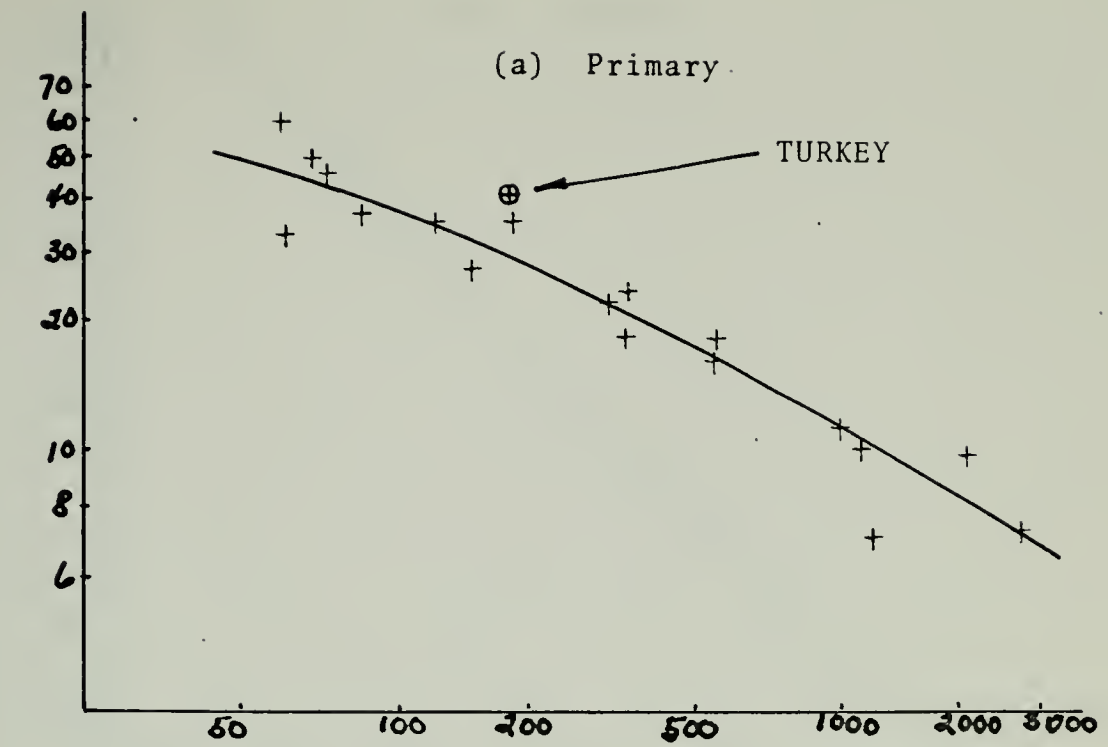
(e) $\ell ny = a + b_1 \ell nx + b_3 \ell nN.$

Scatter diagrams (Figures 8, 9 and 10) and standard errors of estimate of these new variables proved that these equations better explained the relationships.

Regression equation (a) explained the relationship better for primary production while regression equation (b) explained the relationship better for industry (Tables XXXVIII-XLII).

The nonlinear income term $(\ell nx)^2$ is used to determine whether there was a decline in elasticities with rising income noted in most industrial sectors (Figures 8b, 9b, and 10b). This formulation was used to avoid the necessity of subdividing the sample by income level.

To determine whether large countries have different growth patterns from small ones, the sample was divided into groups having populations above and below 15 million. The significance of this subdivision was strongly confirmed by



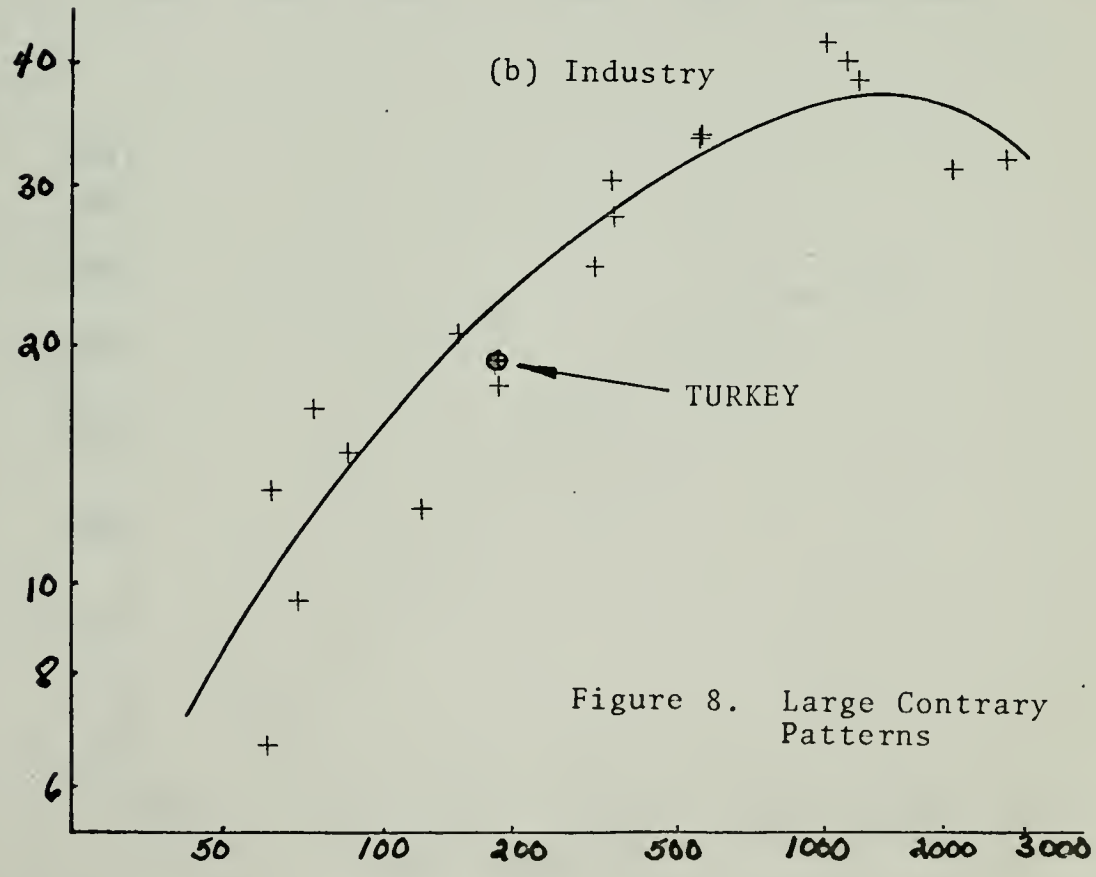
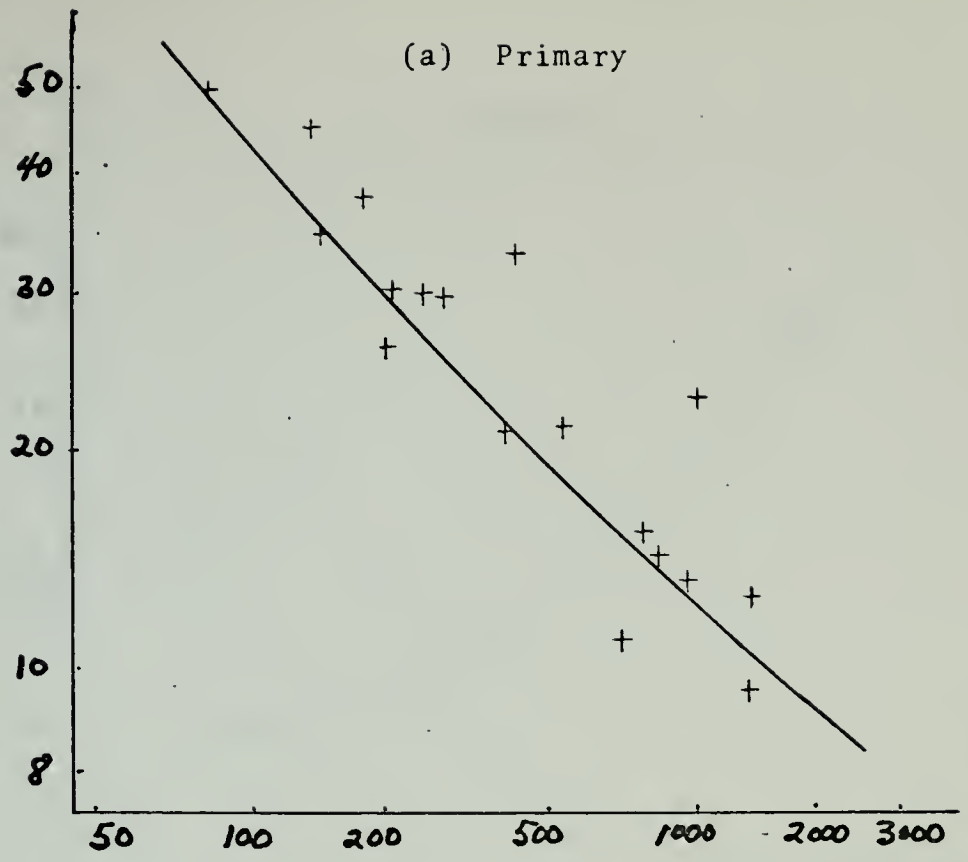
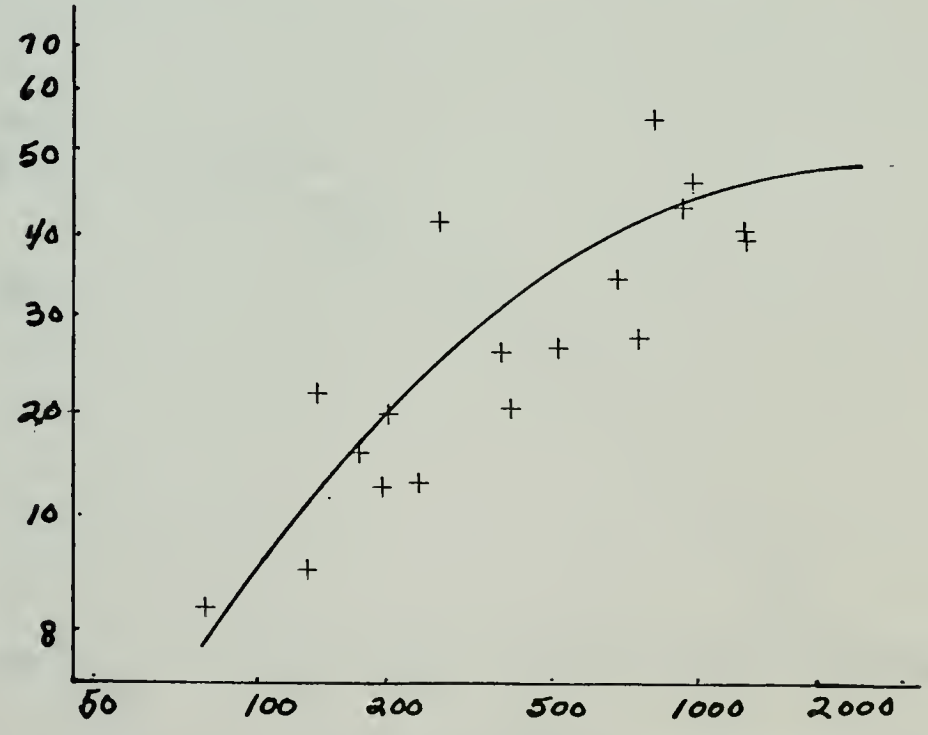


Figure 8. Large Contrary Patterns

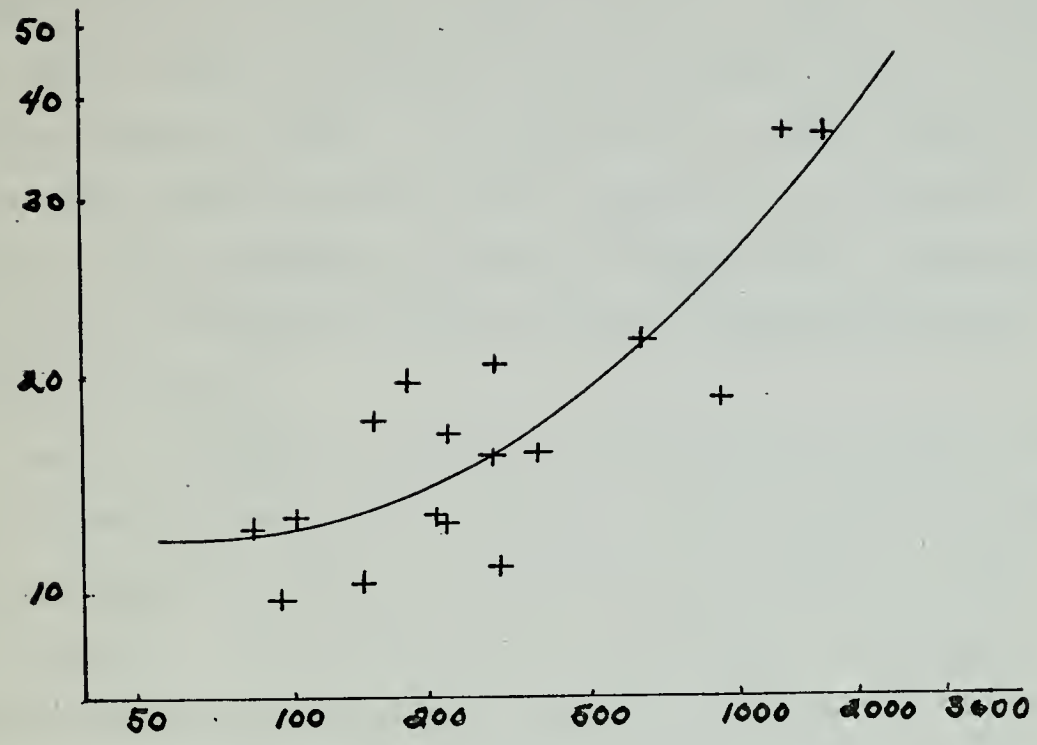


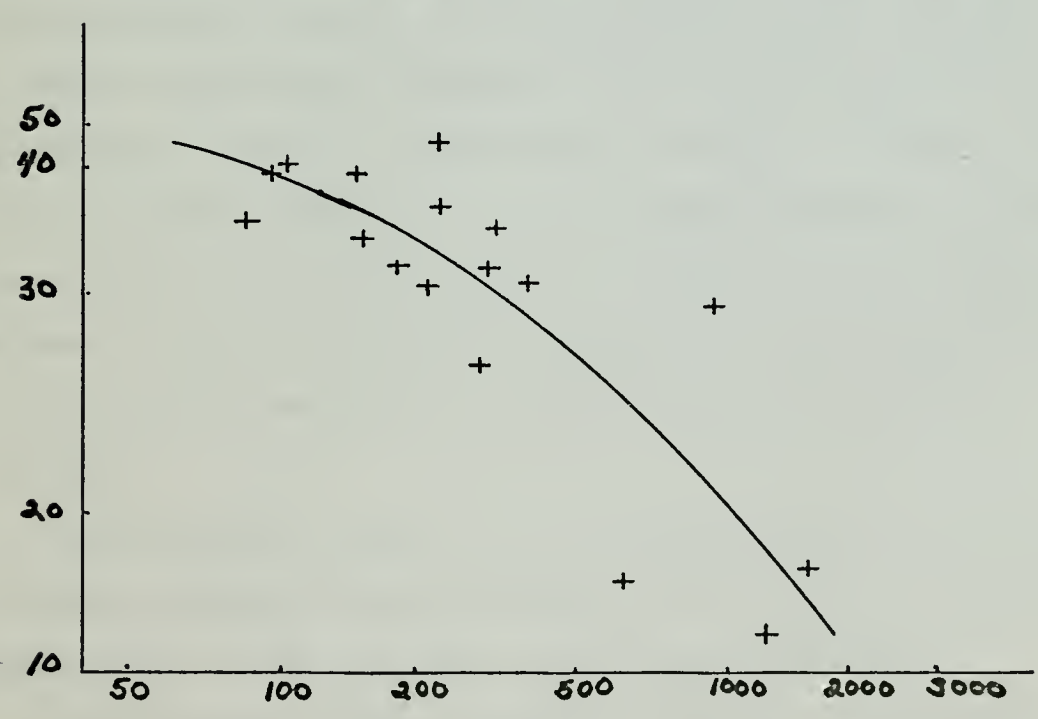


(b) Industry

Figure 9. Small Industry-Oriented Countries.

(a) Primary





(b) Industry

Figure 10. Small Primary-Oriented Patterns.

the regression results. The large country regressions (Fig. 8) showed that the industrial share rose at a rapid rate during the early phase of growth, but then reached a peak at a per capita income of $2300. By contrast, the small country regressions showed a lower income elasticity in the early phases, but no tendency decline at higher levels, since regression coefficient of $(\ell nx)^2$ was not significantly different from zero.

Next, the effects of natural resources and trade patterns in the small country were taken up. Rich natural resources had an opposite effect from size, on the timing of industrialization. Concerning balance, they shift comparative advantage away from industry because the resource cost of earning foreign exchange through primary exports is lower.

There is no single criterion for classifying countries according to resource endownments. We have, therefore, divided the small countries into two equal groups on the basis of an index of trade orientation - toward primary or manufactured exports, modified in marginal cases by consideration of agricultural resources and the existing industrial structure.

The regression results for the small industry-oriented and small primary-oriented groups proved that the regression coefficients to be the same, was strongly rejected.

The three development patterns provide a substantially different view of the interaction of the main explanatory variables from the pooled regression. The three patterns

had substantially lower standard errors of estimate, and hence are statistically more satisfactory.

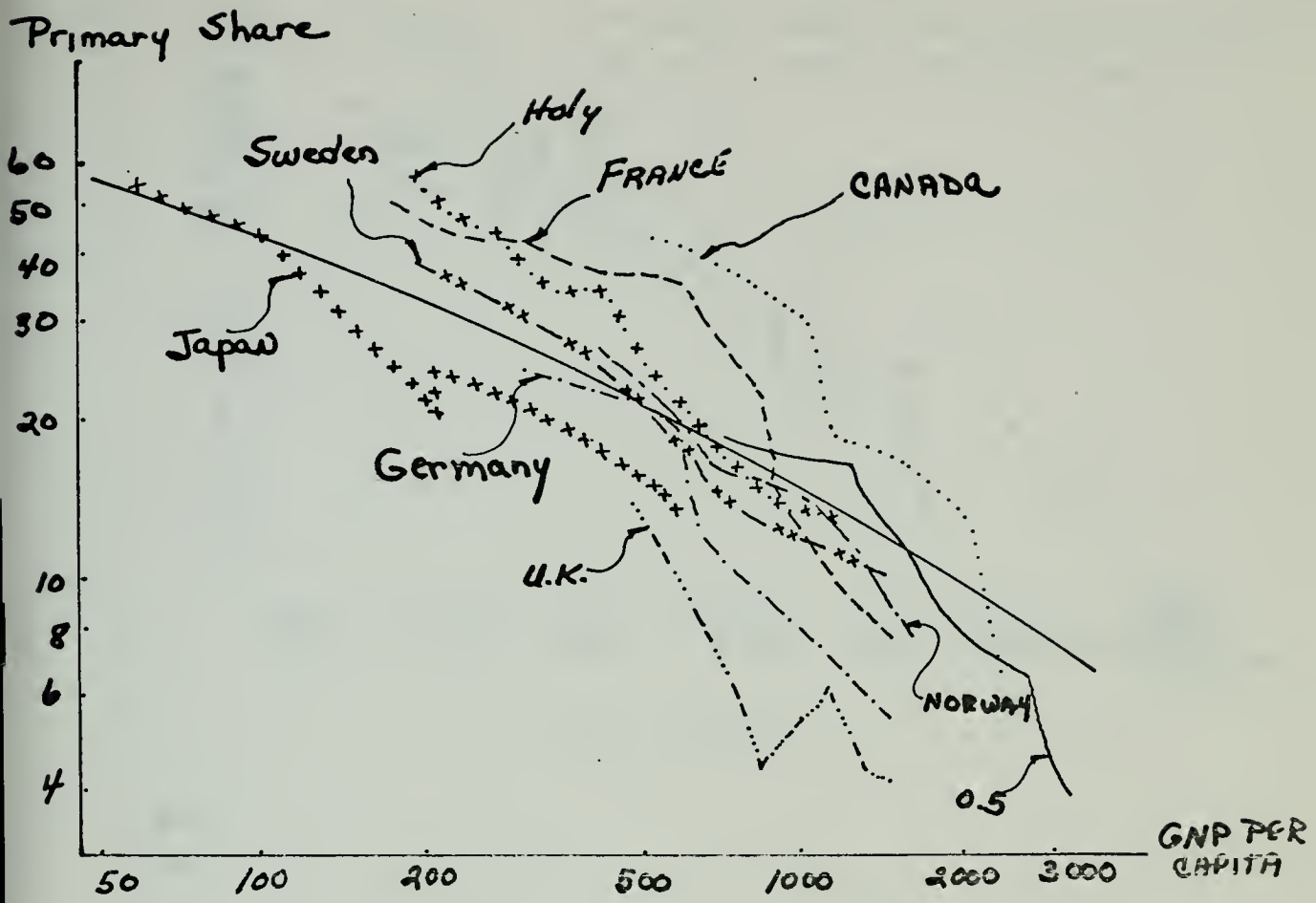
In 1971, Kuznets studied cross-section shares in products for some 57 countries grouped in increasing order of per capita product in 1950, and concluded that "the share of the A sector, agriculture, is inversely correlated with per capita product: it is more than 50% in the lowest income group and as small as 9% in the top group. The share of the I sector, industry, is closely and positively associated with per capita product: it is less than 20% of aggregate product in the lowest income group and more than 50% in the high income groups" [Ref. 16]. These results, generally confirm the results of the year 1960 studied here in (Figures 8, 9, 10 and 11). Figure 12 shows the scatter diagrams for all countries.

B. THREE DEVELOPMENT PATTERNS

1. Large Countries

The large country pattern of Figure 2 shows industry rising rapidly from 16% of GNP at an income of $100 to 32% at $400. Thereafter the increase is much slower and a peak share of 37% is reached at $1200. Primary production falls steadily and crosses the industry curve at a level of $260, where the share of each is 27%. For both sectors the fit is extremely good; less than 10% of the variance in the shares remain unexplained by regression equation (d).

Apart from size and income, only the share of investment is important for large countries in regression equation (d). The trade variables have negligible effects (Table XXXIX).


Primary Share
60
50
40
30
20
10
8
6
4
Holy
Sweden
FRANCE
CANADA
Japan
Germany
U.K.
NORWAY
0.5
50
100
200
500
1000
2000
3000
GNP PER CAPITA

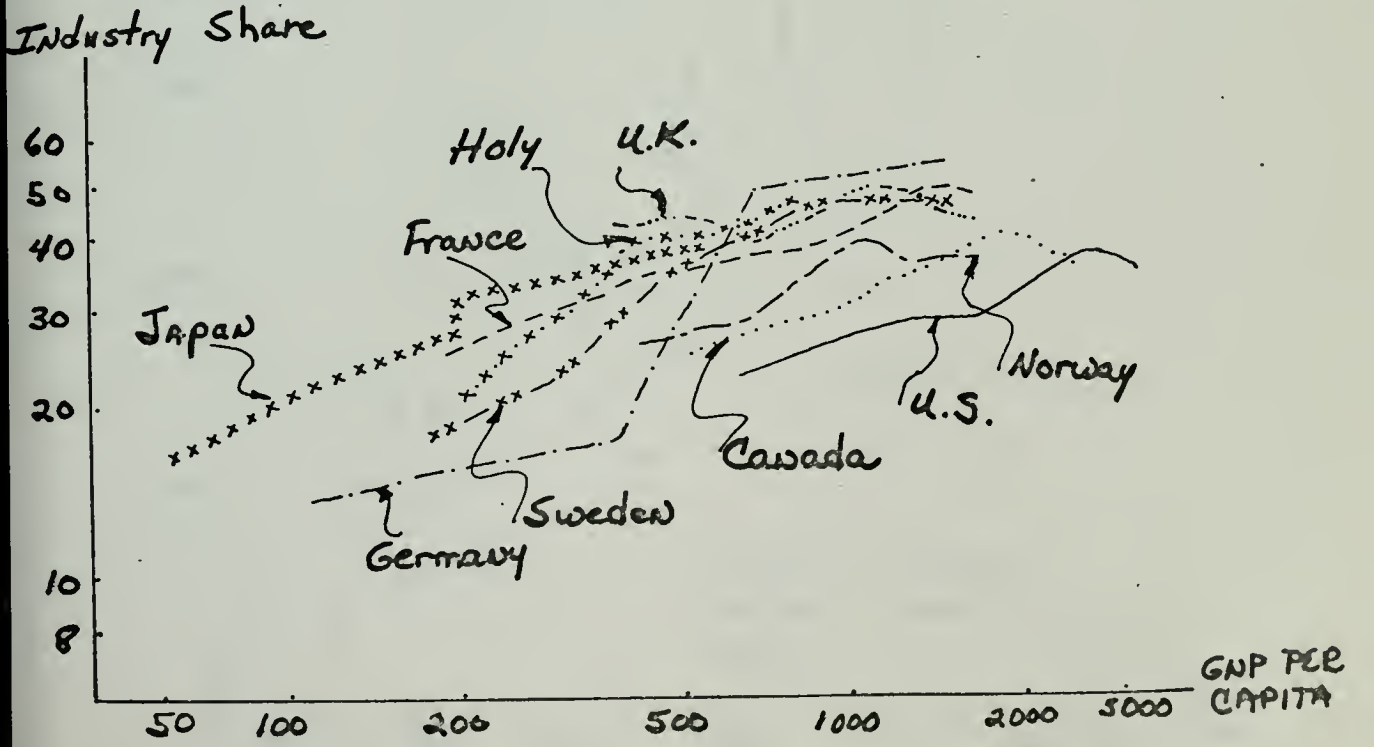
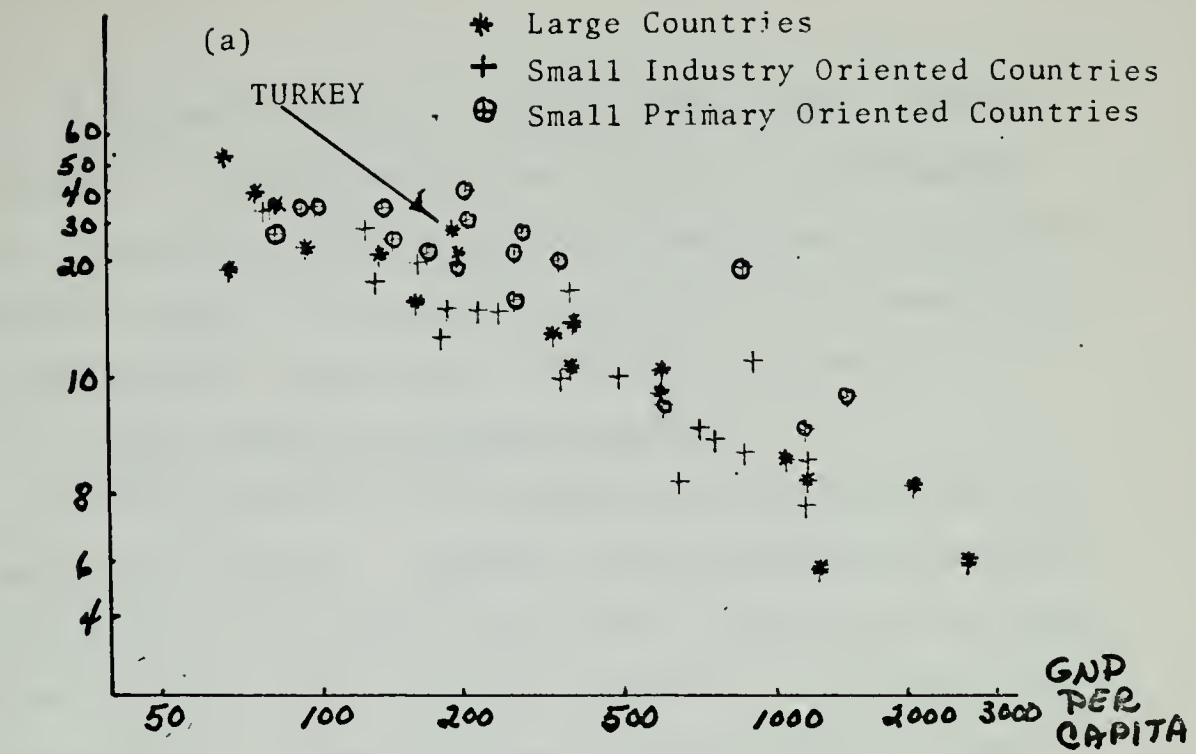

Industry Share
60
50
40
30
20
10
8
Holy
U.K.
France
Japan
Norway
U.S.
Canada
Sweden
Germany
50
100
200
500
1000
2000
3000
GNP PER CAPITA

Figure 11.



(b) Industry

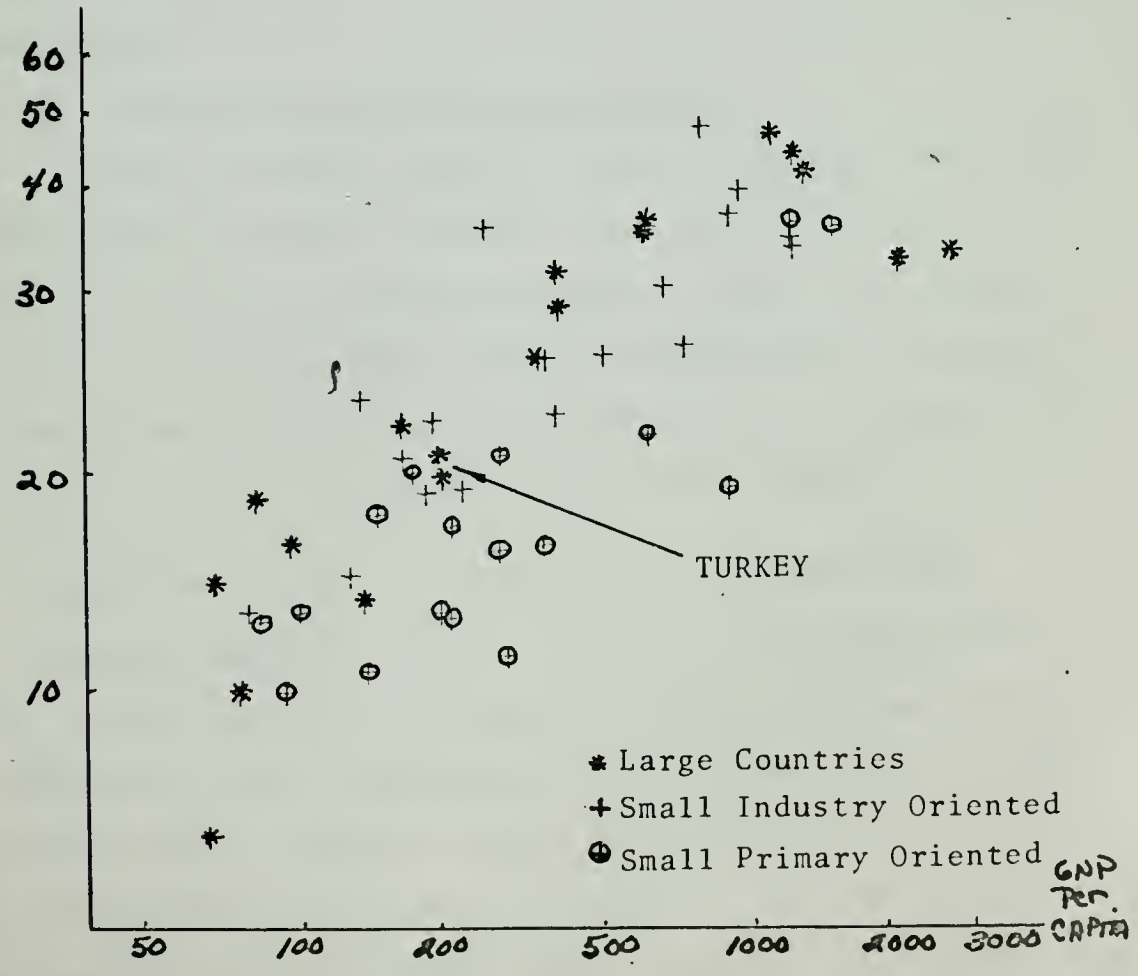


Figure 12.

Figures 8a and 8b show that among large countries there are few significant deviations from the average pattern. Turkey's industrial share is lower than its predicted industrial value. In primary production, its primary share is significantly higher than its predicted value.

2. Small Industry-Oriented Countries

The patterns for this group is very similar to the large country pattern. Industry equals primary production at about the same income level ($270). The export variables are important for this group of countries. The share of investment, on the other hand, has a lesser effect is small countries, since capital goods are largely imported (Figure 9 and Table XLI).

3. Small Primary-Oriented Countries

The countries oriented toward primary exports have a development pattern different from the first two types. Primary production declines much more slowly and exceeds industry up to an income level of nearly $800. Variation in the trade patterns has lesser effect on the share of industry in this group (Figure 10 and Table XLII).

C. LONG-TERM TRENDS IN SHARES (VARIATION OVER TIME)

Kuznets and some other economists have studied the relation between long-term changes in shares over time and their conformity to the cross-section associations [Ref. 16] for some developed countries, and a few less developed countries for which long records were available. The time-series paths of some developed countries (1860-1960) for primary production

TABLE XLII. Regression Results of Production Patterns: Small primary-Oriented Countries

y		Intercept a	Regression Coefficients With Respect to: Ln x (b_1)	$(\text{Ln } x)^2$ (b_2)	Ln N (b_3)	Ln k (b_4)	Ln x_m (b_5)	Ln x_p (b_6)	R^2	St.Err.
Industry	a	0.95	0.33						0.6622	0.2072
			(0.05)							
	b	4.36	-0.67	0.10					0.7345	0.1961
			(0.32)	(0.05)						
	c	4.50	-0.91	0.11	-0.01				0.7350	0.2033
			(0.79)	(0.06)	(0.07)					
	d	9.24	-2.36	0.22	-0.06	-0.04	0.10	0.01	0.7907	0.2060
			(1.44)	(0.11)	(0.06)	(0.21)	(0.07)	(0.10)		
	e	0.90	0.34		0.03				0.6649	0.2136
			(0.06)		(0.07)					
Primary	a	5.59	-0.36						0.6656	0.2311
			(0.06)							
	b	2.57	0.71	-0.09					0.7002	0.2265
			(0.34)	(0.05)						
	c	2.66	0.68	-0.09	-0.01				0.7004	0.2350
			(0.92)	(0.07)	(0.06)					
	d	-5.76	2.94	-0.28	0.03	0.60	-0.14	0.01	0.6940	0.1593
			(1.11)	(0.09)	(0.06)	(0.16)	(0.06)	(0.10)		
	e	5.67	-0.36		-0.04				0.6707	0.2374
			(0.06)		(0.06)					

TABLE XLI. Regression Results of Production Patterns: Small Industry-Oriented Countries

y		Intercept a	Regression Coefficients With Respect to: Ln x (b_1)	$(\text{Ln } x)^2$ (b_2)	Ln N (b_3)	Ln k (b_4)	Ln x_m (b_5)	Ln x_p (b_6)	R^2	St.Err.
Industry	a	1.19	0.35						0.7163	0.1954
			(0.05)							
	b	-0.67	1.01	-0.06					0.7269	0.1960
			(0.36)	(0.02)						
	c	-1.00	1.07	-0.06	0.10				0.7596	0.1923
			(0.03)	(0.07)	(0.06)					
	d	-3.26	2.06	-0.17	0.10	-0.05	0.17	-0.01	0.8948	0.1435
			(0.00)	(0.06)	(0.05)	(0.14)	(0.04)	(0.00)		
	e	1.06	0.39		0.09				0.7460	0.1907
			(0.05)		(0.06)					
Primary	a	6.03	-0.49						0.8301	0.1906
			(0.05)							
	b	6.20	-0.56	0.01					0.8302	0.2051
			(0.09)	(0.07)						
	c	6.09	-0.53	0.01	0.03				0.8322	0.2111
			(0.91)	(0.07)	(0.07)					
	d	5.03	-0.25	-0.01	0.04	-0.12	-0.02	0.13	0.8471	0.2273
			(0.27)	(0.10)	(0.06)	(0.23)	(0.07)	(0.12)		
	e	5.96	-0.50		0.03				0.8321	0.2039
			(0.05)		(0.07)					

TABLE XXXX. Regression Results of Production Patterns: Small Countries

y		Intercept a	Regression Coefficients With Respect to: Ln x (b_1)	$(\text{Ln } x)^2$ (b_2)	Ln N (b_3)	Ln k (b_4)	Ln x_m (b_5)	Ln x_p (b_6)	R^2	St.Err.
Industry	a	0.68	0.38						0.6292	0.2556
			(0.05)							
	b	1.54	0.15	0.02					0.6304	0.2592
			(0.72)	(0.06)						
	c	1.41	0.18	0.02	0.01				0.6310	0.2631
			(0.75)	(0.06)	(0.06)					
	d	1.37	0.40	-0.01	0.01	0.09	0.06	-0.21	0.7646	0.2210
			(0.66)	(0.05)	(0.05)	(0.10)	(0.04)	(0.07)		
	e	1.67	0.37		0.05				0.6299	0.2601
			(0.66)		(0.03)					
Primary	a	5.99	-0.46						0.6698	0.2743
			(0.05)							
	b	4.68	-0.07	-0.03					0.6923	0.2775
			(0.78)	(0.06)						
	c	4.54	0.02	-0.04	0.04				0.6952	0.2806
			(0.60)	(0.06)	(0.07)					
	d	4.21	-0.18	-0.01	0.03	-0.05	-0.06	0.29	0.6493	0.2076
			(0.62)	(0.05)	(0.05)	(0.10)	(0.03)	(0.06)		
	e	4.31	-0.46		0.02				0.6723	0.2806
			(0.04)		(0.02)					

TABLE XXXVIX. Regression Results of Production Patterns : Large Countries

		Reression Coefficients With Respect to:								
y		Intercept a	Ln x (b_1)	$(Ln\ x)^2$ (b_2)	Ln N (b_3)	Ln k (b_4)	Ln x_m (b_5)	Ln x_p (b_6)	R^2	St.Err.
Industry	a	1.06	0.37 (0.04)						0.7739	0.2514
	b	-2.96	1.60 (0.40)	-0.12 (0.13)					0.8746	0.1930
	c	-3.77	1.98 (0.40)	-0.14 (0.03)	0.08 (0.05)				0.8697	0.1866
	d	-4.37	1.93 (0.46)	-0.14 (0.03)	0.09 (0.06)	0.25 (0.17)	0.02 (0.05)	0.05 (0.06)	0.9136	0.1650
	e	1.00	0.37 (0.04)		0.01 (0.07)				0.7744	0.2509
Primary	a	6.08	-0.50 (0.04)						0.9010	0.2114
	b	4.63	0.02 (0.43)	-0.05 (0.03)					0.9093	0.2066
	c	4.79	-0.02 (0.46)	-0.04 (0.03)	-0.02 (0.06)				0.9097	0.2149
	d	2.89	0.38 (0.55)	-0.07 (0.04)	0.09 (0.10)	0.04 (0.21)	-0.06 (0.06)	0.11 (0.10)	09229	0.2220
	e	6.23	-0.50 (0.04)		-0.04 (0.06)				0.9032	0.2154

TABLE XXXVIII. Regression Results of Production Patterns : All Countries

y		Intercept a	Ln x (b_1)	$(\text{Ln } x)^2$ (b_2)	Ln N (b_3)	Ln k (b_4)	Ln x_m (b_5)	Ln x_p (b_6)	R^2	St.Err.
			Regression Coefficients With Respect to:							
Industry	a	0.95	0.37 (0.03)						0.6043	0.2553
	b	-0.60	0.92 (0.40)	-0.05 (0.03)					0.6957	0.2531
	c	-1.90	1.32 (0.42)	-0.08 (0.04)	0.07 (0.03)				0.7256	0.2427
	d	-1.23	1.25 (0.39)	-0.06 (0.03)	0.02 (0.03)	0.03 (0.09)	0.06 (0.03)	-0.11 (0.05)	0.7799	0.2242
	e	0.65	0.37 (0.03)		0.04 (0.03)				0.6973	0.2624
Primary	a	6.06	-0.48 (0.04)						0.7614	0.2506
	b	4.15	0.19 (0.39)	-0.06 (0.03)					0.7931	0.2540
	c	4.66	0.04 (0.43)	-0.04 (0.03)	-0.03 (0.03)				0.7962	0.2547
	d	3.16	0.23 (0.37)	-0.05 (0.03)	0.06 (0.03)	0.03 (0.09)	-0.04 (0.03)	0.20 (0.05)	0.8656	0.2131
	e	1.56	-0.48 (0.01)		-0.04 (0.01)				0.7861	0.2601

and industry obtained from this study are plotted in Figure 11, for comparisons to the large country pattern in Figure 8.

Figure 11 shows considerable similarity in the overall pattern of structural change that has taken place in the advanced countries. The rise of industry has been quite consistent with the cross-country patterns. The fall of the primary share has been even more pronounced than the postwar pattern; on the average, movement along the cross-section regression for large countries would explain about 80% of the observed decline in these countries. This downward shift has persisted into the postwar period.

D. CONCLUSIONS OF THE ECONOMETRIC STUDY

1. Three distinct development patterns have been identified from intercountry analysis: large countries, small industry-oriented countries, and small primary-oriented countries. The variation of production levels with income is best described by separate regression equations for each group, because income levels interact differently for each.

2. Time-series analyses of growth paths supported the hypothesis that universal factors affecting all countries, reflected in the intercountry patterns. Although individual country differences cause substantial variation, the central tendencies of the time-series estimates were close to the corresponding cross-section estimates in all cases.

3. The results of this study proved that the international cross-section comparisons may provide a sound basis for projecting trends in production structure of Turkey either backward into the pass or forward into the future. However, if

any disparities that emerge between the results of cross-section comparisons and these of direct observations of trends over time in the course of economic growth of Turkey help identify the specific factors that operate in growth over time but are not reflected in cross-section data.

According to these results, Turkey stays right in the middle of the large country pattern (Figures 3 and 4). Time-series analyses of postwar period for Turkey shows some decline in primary production and some increase in industry as discussed in Chapter V of this study. This provides a sound basis for projecting trends in production structure of Turkey either backward or forward on the large country pattern.

E. THE TECHNIQUES WHICH ARE USED TO ANALYZE THE REGRESSION EQUATIONS

1. Test Whether All Slopes are Jointly Equal to Zero

H_o : $\beta^* = 0$

H_1 : ALL SLOPES ARE NOT EQUAL TO ZERO .

$$\text{CAL } F = \frac{SSR \,/\, K}{SSE \,/\, n\text{-}K\text{-}1} \qquad \text{CRIT } F_{\alpha;K,n-K-1}$$

$F_{CAL} < F_{CRT}$ . . . ACCEPT H_o .

If all slopes are not significantly different from zero, then we conclude that none of the independent variables is making a statistical contribution to the explanation of the dependent variable at the stated level of significance. In other words, none of the explanatory variables has an influence on the mean of Y if the null hypothesis is not true,

at least one of the regression slopes is different from zero. If the null hypothesis is true, then the variation of Y from observation to observation is not affected by changes in any-one of the explanatory variables, but is purely random [Refs. 20 and 21].

2. Test That a Single Coefficient is a Given Constant (or Zero)

$H_o : B_k = 0$

$H_1 : B_k > 0$

$$\text{CAL } t = \frac{\hat{\beta}_k - 0}{s\beta_{kk}} \qquad \text{CRT } t_{\alpha;n-K-1}$$

$t_{CAL} > t_{CRT}$ . . . ACCEPT H_o.

If a slope is determined not to be significantly different from zero, then the variable associated with that slope is making no statistical contribution to the explanation of the dependent variable [Refs. 20 and 21].

3. Test of the Equality of Coefficients for Different Regression Equations (BIMED 02R)

$H_o : B_{10} = B_{20} = B_{30} = B_0$

$B_{11} = B_{21} = B_{31} = B_1$

$B_{12} = B_{22} = B_{32} = B_2$

H_1 : NOT ALL CORRESPONDING COEFFICIENTS ARE EQUAL

$$\text{CAL } F = \frac{S_2 \;/\; (p-1)(K+1)}{S_1 \;/\; n-p(K+1)} \qquad \text{CRT } F_{\alpha;(p-1)(K+1),n-p(K+1)}$$

$F_{CAL} < F_{CRT}$ ACCEPT H_o.

If we conclude that all coefficients are equal, then, one regression line will serve in place of three regression equations. That is, we can pool all the data together. More specifically, the sum of the squared residuals of pooled data will not be significantly different from the total of the sum of squared residuals of the three individual equations [Refs. 20 and 21].

4. Test of the Correlation Ratio to Find Whether or Not a Functional Relationship Exists Between the Dependent Variable and the Independent Variable

$H_o : \eta = 0$ There is no functional relationship

$H_1 : \eta \neq 0$ There is functional relationship

$$\text{CAL } F = \frac{\text{EXPL VAR / K-1}}{\text{UNEXPL VAR / n-K}} = \frac{\hat{\eta}^2 \text{ / k-1}}{1 - \hat{\eta}^2 \text{/ n-K}}$$

$$\text{CRT } F_{\alpha;K-1,n-K}$$

$F_{CAL} < F_{CRT}$ ACCEPT H_o.

The degree of regressional relation between dependent and independent variable is $\hat{\eta}^2$ = Explained Variation / Total Variation. To find whether or not a functional relationship exists between Y and X, we test the correlation ratio. If we do not reject the hypothesis then we conclude there is no functional relationship between Y and X.

If Y and X have no regression relationship, then for the samples we expect that the line representing conditional means $\bar{Y}_i$ will be horizontal and correspond to the line representing the grand sample mean. That is $\bar{Y}_i = \bar{Y}..$, and explained variation will be zero [Ref. 20].

5. Test Whether These Three Regression Equations Have the Same Slopes (Analysis of Covariance)

H_o : $B_{11} = B_{21} = B_{31} = B_1$

H_1 : NOT ALL SLOPES ARE EQUAL

$$\text{CAL } F = \frac{S_2 \,/\, r(p-1)}{S_1 \,/\, n-p(K+1)} \qquad \text{CRT } F_{\alpha;r(p-1),n-p(K+1)}$$

$F_{CAL} < F_{CRT}$ ACCEPT H_o.

In economic research the intercept of a regression equation is generally of less consequence than the slope. Therefore we are interested in testing the hypothesis that only the slopes are equal among three regression equations. That is we want to test whether the effect of independent variables upon dependent variable is the same for the three regression equations (for the conditional classifications) [Refs. 20 and 21].

6. To Test Whether or not the Column Means, $\mu_{.j}$, j=1,2,3, Which are Estimated by $Y^*_{.j}$ are Equal (Equality of Adjusted Column Means). (Analysis of Covariance).

H_o : $\mu_{.1} = \mu_{.2} = \mu_{.3} = Y$ (for the dep. variable)

H_1 : NOT ALL COLUMN MEANS ARE EQUAL (for the dep. variable)

$$\text{CAL } F = \frac{S^*_c \,/\, (K-1)}{S^*_1 \,/\, (N-K-1)} \qquad \text{CRT } F_{\alpha;K-1,N-K-1}$$

$F_{CAL} < F_{CRT}$ ACCEPT H_o.

After testing all three regression equations have same slopes (EQUALITY OF SLOPES), we test whether or not the column

means, $\mu_{.j}(j=1,2,3)$ which are estimated by $Y^*_{.j}$, are equal. This technique combines the features of analysis of variance and regression. We wonder whether or not the mean per capita manufacturing differs among the three regression equations (conditional classifications). Regression analysis provided us with the estimated slope $\hat{\beta}$. Then, after adjusting for the effect of the concomitant variable, we do an analysis of variance on the adjusted dependent variable. The discrepancy between S_o^* and S_1^* is small if the null hypothesis is true. If it is true condiction classification is of little influence upon the per capita manufacturing when GDP per capita and population is taken into account [Ref. 20 and 21].

7. If a Functional Relationship Exists Test that Population Regression Relationship Between Dependent and Independent Variable is Linear (Test for Linearity)

H_o : The relationship is linear

H_1 : The relationship is nonlinear

$$\text{CAL } F = \frac{(\hat{\eta}^2 - r^2) / (K-2)}{(1 - \hat{\eta}^2) / (n-K)} \qquad \text{CRT } F_{\alpha;K-2,n-K}$$

$F_{CAL} > F_{CRT}$ $\therefore$ REJECT H_o.

If a functional relationship exists we want to test the relationship is linear or nonlinear (specification error deviation will be zero if the true functional relationship is linear). If we reject the null hypothesis, we conclude that the population regression relation is nonlinear [Ref. 20].

8. Test for Homoskedasticity

H_o : $\sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \sigma^2$

H_1 : The variance of disturbances for each group are not equal.

The test statistic is

$$\hat{\lambda} = \frac{-4.60517 \text{ Log } M}{1 - N}$$

$$\chi^2_{m-1},\ 0.05 = 5.991$$

$$\hat{\lambda} > \chi^2 \quad \text{ACCEPT } H_o.$$

If we accept H_o, the variance of disturbances will be same and constant for each group at $\alpha = .05$. There will be no heteroskedasticity [Ref. 20].

OR

A quick way to test for heteroskedasticity is to look at the scatter diagram of residuals. If the residuals seem to become larger as the value of explanatory variable increases there will be heteroskedasticity [Ref. 21].

9. Testing for Autocorrelation

H_o : = 0 (no first-order autocorrelation)

H_1 : ≠ 0 (there is autocorrelation)

$$\text{Durbin-Watson statistics } d = \frac{\sum_{t=2}^{T} (e_t - e_{t-1})^2}{\sum_{t=1}^{T} (e_t)^2}$$

CRT $d_L = 1.60$, $d_U = 1.65$ (for one independent variable and 76 observations, and for a 0.05 critical region.)

If $d_L < d_U < d < 4-d_U < 4-d_L$ ACCEPT H_o.

If we accept H_o there is no autocorrelation at the stated level of significance [Ref. 20].

OR

A quick way of determining the presence of autocorrelation is to note the pattern of the residuals from regression line. This can be done most expeditiously by looking at the scatter diagram of the residuals about the regression line. If the residuals seem to follow a pattern, the error term is likely to be autocorrelated [Ref. 21].

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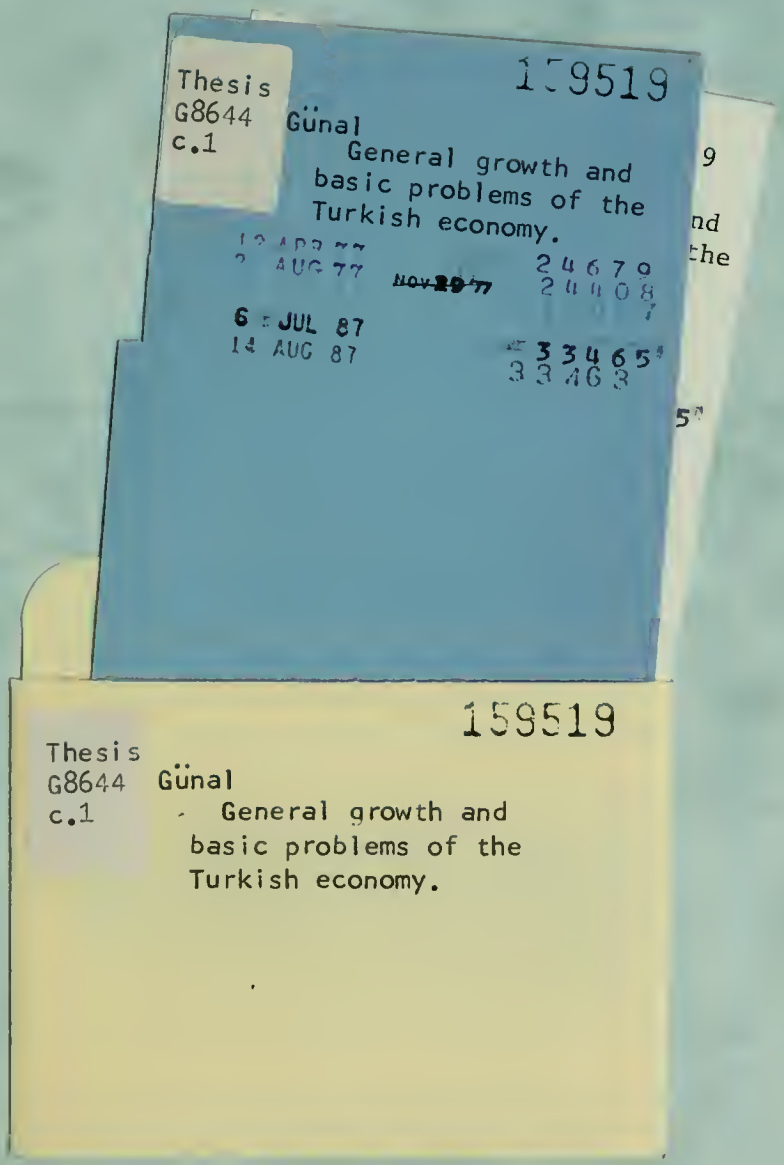

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